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PREDICTING AND EVALUATING THE EFFECTS OF ACIDIC PRECIPITATION ON WATER CHEMISTRY AND ENDEMIC FISH POPULATIONS IN THE NORTHEASTERN UNITED STATES

by

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UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE

EASTERN ENERGY AND LAND USE TEAM
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Dear Colleague:

The Eastern Energy and Land Use Team (EELUT) is pleased to provide you with this report entitled "Predicting and Evaluating the Effects of Acidic Precipitation on Water Chemistry and Endemic Fish Populations in the Northeastern United States." This is the twenty-third technical publication in the EELUT series on air pollution and acid rain. Previous reports in this series are listed on the following pages.

This study was conducted to better understand the relationship between the status of fish populations and a range of chemical conditions related to acidity. The research involved 22 lakes in Maine. The lakes are in a region that receives highly acidic precipitation. The study showed fish distribution and abundance were affected by acidity. There were no fish in lakes with pH less than 5.0. Fish from lakes between pH 5.4 and 6.0 contained elevated concentrations of trace metals. Sublethal stress, as indicated by reduced bone mechanical strength and increased numbers of gill mucus cells, was also shown for fish from acidic lakes.

We are interested in your comments concerning this publication and invite you to write or call us (phone 304/725-2061; FTS 9255279).

Sincerely,

R. Kent Schreiber

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Acting Team Leader, EELUT

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DISCLAIMER

Although the research described in this report has been funded in part by the U.S. Environmental Protection Agency through Interagency Agreement No. AD-14-F-2A221 to the U.S. Fish and Wildlife Service, it has not been subjected to the Agency's required peer and policy review and does not necessarily reflect the views of the Agency. Mention of trade names or commercial products does not constitute endorsement or recommendation for use by the Federal Government. This research has been funded as part of the National Acid Precipitation Assessment Program by the U.S. Fish and Wildlife Service and the U.S. Environmental Protection Agency.

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EXECUTIVE SUMMARY

This study was conducted to assess the status of fish populations of 22 lakes in Maine representing a range of chemical conditions related to acidity. All the lakes were less than 50 ha in surface area, were located in undisturbed watersheds, had permanent outlets but no permanent inlets, and were low in color. None had been stocked with fish or chemically reclaimed. Lakes were selected in areas in which each of the bedrock buffering capacity and soil cation exchange capacity categories identified in the state are represented. Each lake was sampled three times to determine water chemistry and once to assess the status of fish populations. In addition, trace element concentration, bone strength and composition, and gill histological parameters were studied in white sucker from four lakes representing the range of water chemistry conditions of lakes that supported fish.

Bedrock buffering capacity and soil cation exchange capacity were not good predictive indices of lake acidity. Bedrock and soil areas with high acid neutralizing capacity (ANC) did not contain acid lakes, but areas that were low in ANC contained lakes ranging from highly acidic to neutral. From this we can predict that lakes located in regions of high ANC would not be acidic, but without detailed information on watershed hydrology, it was not possible to predict the level of acidity of lakes located in regions with low ANC. Although this region receives highly acidic precipitation, only a small fraction of the lakes located in areas of low ANC were in fact acidic.

Of the 22 lakes surveyed three had pH<5.0 and contained no fish. The remaining 19 lakes had pH 5.4-7.0 and contained 1-10 species of fish. Brook trout, golden shiner, and white sucker were the most common species. White sucker and sunfish (pumpkinseed and redbreast) were ubiquitous with respect to lake pH, but common shiner and creek chub were absent from lakes less than pH 5.9-6.0. Multivariate statistical analyses showed that the fishless lakes differed from lakes supporting fish primarily with respect to water chemistry variables related to acidity, such as pH, aluminum, and calcium. For lakes containing fish the factors most related to fish species richness and abundance were total ionic strength, maximum depth, and surface area, all measures related to lake productivity, and habitat quantity and diversity. Cluster analysis identified three distinct fish species groups - depauperate, sunfish-sucker, and cyprinid - but multiple comparison analysis failed to relate any measured chemical or physical variable to these groupings. Lakes in the depauperate group tended to be deep and low in ionic strength, and the lack of fish species in these lakes may be the result of low productivity coupled with an absence of extensive littoral areas.

Fish from three acidic lakes were higher in whole body residues of cadmium, lead, and mercury than fish from the single circumneutral lake studied. However, stepwise multiple regression analysis indicated that the differences in trace metal content were best explained by the sum of calcium and magnesium or the log of alkalinity of lake water. This suggests that divalent cations play an important role in trace metal uptake. There was no evidence that lake acidity affected whole body stores of sodium or potassium.

The mechanical properties of bone in fish from more acidic lakes also were significantly weaker than fish from the circumneutral lake. Bone proline concentration was significantly reduced in these fish, and there was a tendency for the weaker bones to be lower in calcium. Histological analyses of the gills of these fish demonstrated an increased number of mucus cells in fish from an acidic as compared to fish from a circumneutral lake.

The results of this study show that fish species distribution and abundance were affected by acidity in Maine lakes. Lakes of pH less than 5.0 were devoid of fish. Lakes of pH about 5.5 and above contained relatively normal fish populations in terms of abundance and species richness. Fish from lakes between pH 5.4-6.0 contained elevated concentrations of trace metals, probably as a result of divalent cation mediation of metal uptake across gill membranes. Fish from acidic lakes also showed sublethal stress as indicated by reduced bone mechanical strength and increased numbers of gill mucus cells.

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GENERAL INTRODUCTION

It is now well documented that the precipitation that falls on the northeastern United States is highly acidic as compared to western North America or remote locations elsewhere in the world. Galloway et al. (1984) reported that the mean pH of precipitation at five background sites in the southern hemisphere was 4.7 to 5.0, whereas the mean pH for five sites in the northeastern United States was 4.15-4.30. The decreased pH in precipitation at the northeastern United States sites was accompanied by similarily increased concentrations of nitrate and sulfate. Neftel et al. (1985) found that nitrate and sulfate concentrations in snow from south Greenland have increased since 1895. Both compounds exhibited an initial increase followed by a moderate decrease from 1895 to ca. 1935, followed by a generally continuous increase to the present. They calculated that anthropogenic sources of these acid precursors surpassed natural sources in the late 1950s. Wolff and Peel (1985) reviewed previous studies of the record of global pollution in polar ice and snow and concluded that concentrations of sulfate and nitrate in Greenland snow have increased by factors of three and two, respectively, over the last century, but that no such increases have occurred in Antarctica. They interpreted this as a reflection of the geographical pattern of industrial emissions, which are concentrated in the northern hemisphere.

The deposition rate of acidic substances (primarily H^+ and SO_2) downwind of industrial areas may be 1-5 keq/ha/yr. This exceeds the acid neutralizing capacity of soils and surface waters in areas that are comprised of base-poor bedrock overlain with thin podzolic soils (Schnoor and Stumm 1984; van Breemen et al. 1984). This situation exists in areas of Scandinavia and eastern North America, where the presence of acidic ($pH<5.0$), low color lakes and streams has been well documented (Altshuller and Linthurst 1984). Analysis of fossil diatom frustules from sediments in lakes in these areas suggests that acidification began no earlier than the 1800s, and frequently as late as the 1950s (Battarbee et al. 1985; Charles 1984; Davis and Berge 1980; Davis et al. 1983). Acidification of surface waters has resulted in complex changes in aquatic biological communities, the most noticeable of which is the decline or extinction of fish populations (Dillon et al. 1984). Fish that survive in acidic lakes frequently contain elevated concentrations of toxic trace metals, such as cadmium, lead, and mercury (Heit and Klusek 1985; Jernelov 1980; Suns et al. 1980; Wiener 1983).

The linkage between surface water acidification and fish population decline has been clearly established in Scandinavia (Muniz et al. 1984; Wright and Henriksen 1983), the Sudbury region of Ontario (Harvey and Lee 1982), and southwestern Nova Scotia (Watt et al. 1983). Baker and Harvey (1985) recently examined the extensive fishery database for the Adirondack Mountain region of New York and concluded that at least 50 fish populations had been eliminated by acidification, and the number could be as large as 300-350 populations. Elsewhere in the United States the evidence that fish populations have been altered by acidification is weak (Magnuson et al. 1984). In a previous study (Haines and Akielaszek 1983) we documented the existence of acidic, clear water lakes in northern New England. Approximately 8% of the lakes surveyed had $pH<5.0$, and 40% had acid neutralizing capacity (ANC) less than 100 μeq/l. The acidic and low ANC lakes were generally small, headwater lakes located in areas where bedrock was low in buffering capacity. However, no biological data were collected during that study to ascertain the relationship between fish populations and lake acidity.

This study was conducted to collect further information concerning the relationship between watershed parameters and lake chemistry in northern New England, ascertain the relationship between fish populations and physical and chemical characteristics of the lakes, and evaluate chemical stress on fish in acidic lakes by employing several biochemical and physiological measurements. We selected 22 lakes in Maine that were similar with respect to physical parameters but were located in areas of varying bedrock and soil composition, and which had not been subjected to fishery management manipulations. Each lake was surveyed to evaluate chemical composition and fish population status. In addition, trace element concentrations, major cations, bone strength and composition, and size and density of mucus cells in gill epithelia were studied.

LAKE SELECTION AND SAMPLING

LAKE SELECTION

We selected 21 lakes for intensive study of water chemistry and fish populations (Figure 1; Table 1) based on the following criteria: (1) representative bedrock buffering capacity, (2) representative soil exchange capacity, (3) lake surface area less than 50 ha, (4) no human disturbance in the watershed, (5) no history of fish stocking or chemical reclamation, (6) presence of a permanent outlet but no permanent inlet, (7) lack of bog characteristics (low color), (8) reasonable accessibility. In addition, Mud Pond, T10SD, Hancock County, was included and used in the fish species distribution analysis. This lake is part of the NAPAP Long Term Monitoring Program and has been studied by us since 1980. Seven of the lakes had been previously surveyed by state fisheries biologists.

Approximately 60% of the lakes were located in bedrock class 1 (little or no buffering capacity; Hendrey et al. 1980) and 85% in soil classes SS1 and SS2 (slightly sensitive; McFee 1980). Initially we planned to select approximately the same number of lakes to represent each soil and bedrock type, in order to evaluate these factors as predictors of lake chemistry and fish population status. However the first 10 lakes surveyed were relatively high in pH and alkalinity, despite being located mostly in areas of low ANC. Therefore, we subsequently selected lakes that were only located in areas of low ANC in order to increase the sample size of lower pH lakes.

CHEMICAL SAMPLING

Each lake was sampled three times for water chemistry: spring overturn, summer stratification, and fall overturn. The water sample collection protocol followed that specified by the National Acid Precipitation Assessment Program (1985). Briefly, this involved collecting three samples each at two depths: 0.1 m below the surface and as close to the bottom as possible in the deepest part of the lake. Samples were collected with plastic Van Dorn-type collectors, and immediately transferred to polyethylene bottles that had been acid washed and rinsed three times with double deionized, distilled water. Each bottle was rinsed three times with lake water of appropriate depth before it was filled with the sample. Water samples were placed on ice within an hour after collection and returned to the laboratory within 3 hours. Immediately upon arrival at the laboratory, pH, specific conductance, apparent color, and alkalinity were measured on one sample from each depth. The two remaining samples from each depth were stored for later analysis of major cations and anions. The sample used for measuring cations was preserved by acidifying with HNO_3 to pH below 2 and the sample used for measuring anions was refrigerated at 1 C.

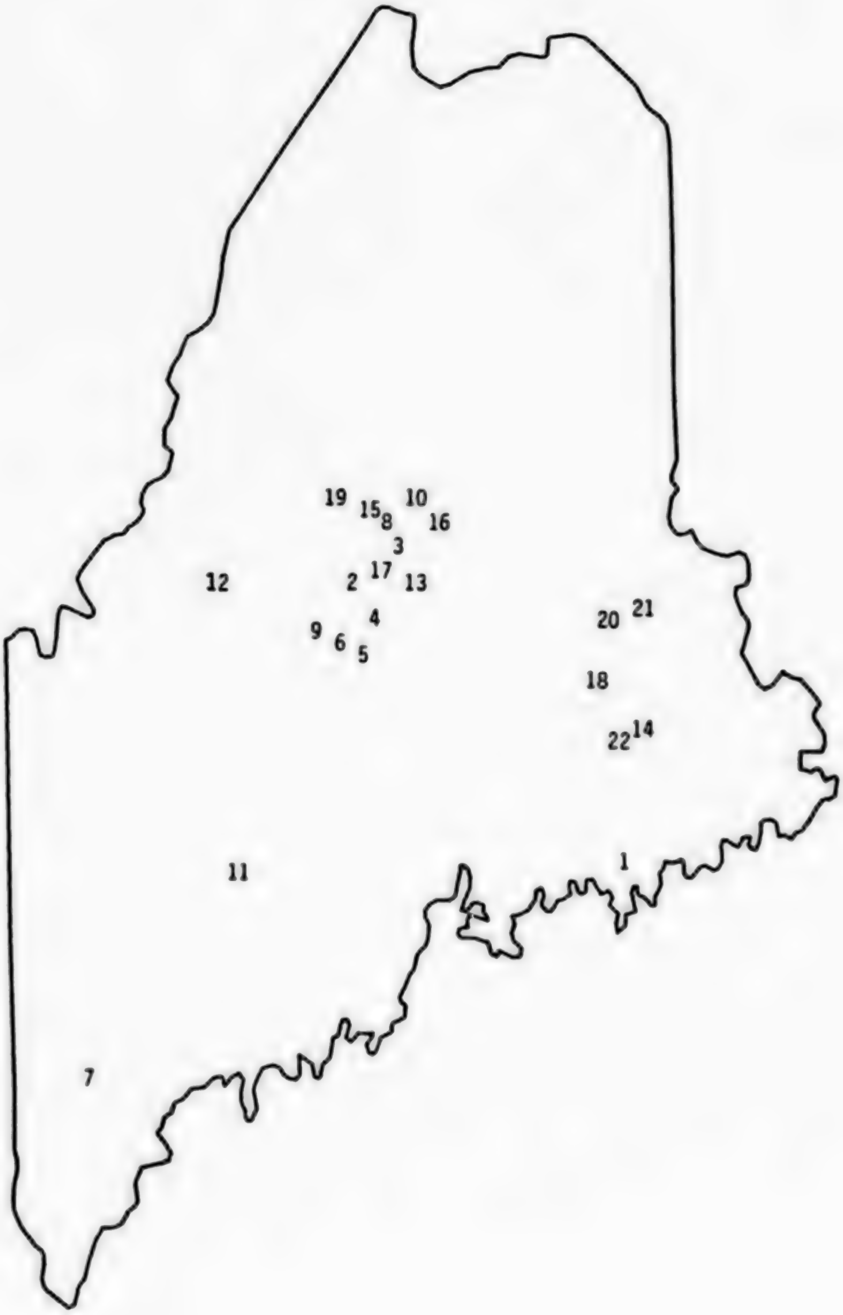

Figure 1. Location of the 22 Maine lakes surveyed. The numbers are associated with lake names in Table 1.

Table 1. Morphological characteristics of the 22 study lakes.

Number	Lake	Latitude	Longitude	Lake Area (ha)	Watershed Area (ha)	Elevation (m)	Max. Depth (m)	Bedrock[a] Class	Soil[b] Class
1	Mud	44°37'50"	68°05'38"	2	68	110	14	1	SS2
2	Cloud	45°24'59"	69°21'26"	8	34	734	11	1	SS2
3	Crater	45°31'13"	69°07'01"	6	18	771	8	2	SS2
4	Lost	45°25'41"	69°16'58"	6	60	325	3	1	SS2
5	Garcock	44°16'10"	69°21'03"	1	26	120	6	1	SS2
6	Horseshoe	45°17'30"	69°22'46"	26	194	162	4	1	SS2
7	Browns	43°54'27"	70°43'21"	39	311	159	2	1	SS2
8	Unnamed	45°41'00"	69°10'00"	7	27	382	2	1	SS2
9	Eighteen	45°19'00"	69°27'42"	6	34	229	9	4	SS2
10	Little Hurd	45°49'22"	69°01'30"	24	1984	222	27	1	SS2
11	Davis	44°33'33"	69°59'58"	7	70	253	11	1	SS2
12	Fogg	45°35'27"	70°04'01"	9	197	532	6	2	SS2
13	Johnston	45°35'50"	69°03'42"	24	264	416	18	2	SS2
14	Knox	45°01'19"	67°53'41"	21	337	104	6	1	SS1
15	Little Fisher	45°46'04"	69°16'40"	14	179	363	2	3	NS
16	Twin	45°47'47"	68°49'33"	24	158	241	26	1	SS2
17	Bear	45°38'51"	69°11'40"	5	163	418	4	1	SS2
18	Porter	45°09'32"	68°13'02"	23	161	140	4	1	SS2
19	Big Fisher	45°46'41"	69°17'18"	23	153	351	3	3	NS
20	Upper Pug	45°18'59"	68°05'34"	20	236	153	5	4	SS2
21	Trout	45°22'32"	67°53'12"	2	41	241	3	2	NS
22	Green	45°00'51"	68°03'20"	26	114	139	4	3	SS2

[a] Bedrock class 1=no ANC, 2=slight ANC, 3=moderate ANC, 4=high ANC (Hendrey et al. 1980).

[b] Soil class SS1=slightly sensitive to acidification, more than 50% of area, SS2=slightly sensitive, less than 50% of area, NS=not sensitive (McFee 1980).

The pH was measured with a Fisher or Cole Parmer digital pH meter, equipped with either a Beckman Altex or an Ingold liquid filled glass combination electrode. Specific conductance was measured with a temperature compensating portable conductivity meter (Markson model 10). Apparent color was obtained by visually comparing the color of a 25 ml unfiltered water sample to platinum cobalt standards. Alkalinity was determined by inflection point titration following the method of Gran (Stumm and Morgan 1981). All analyses were performed in replicate (i.e., twice). Sodium and potassium concentrations were determined by air-acetylene flame atomic absorption spectrophotometry (AAS; Perkin Elmer model 703), calcium and magnesium by nitrous oxide-acetylene flame AAS, and total aluminum by graphite furnace AAS. Sulfate, nitrate, and chloride ion concentrations were determined by ion chromatography (Dionex model 2110i). Organic anions were calculated from water color following the procedure described by Haines and Akielaszek (1983).

FISH COLLECTION

Fish were collected once from all the lakes during the summer months of 1982 and 1983. In addition, we resurveyed 6 lakes once in the summer of 1984. In 1982 and 1983, fish were sampled with one overnight set of one 60 or 75 m nylon experimental mesh gill net and 4 metal minnow traps baited with commercial dry dog food. The gillnets were 2 m deep: the 60 m net contained four panels of stretched mesh size 25 mm, 35 mm, 50 mm, and 63 mm, respectively. The 75 m net contained an additional panel of 75 mm stretched mesh. Net and minnow traps were set in late afternoon and retrieved the next morning, after fishing an average of 19 hours per lake. The gillnet was set with the small mesh size panels in shallow water and the larger mesh panels in deeper water. The four minnow traps were scattered in the littoral zone, preferably in areas containing submerged aquatic vegetation.

All fish caught were placed on ice and returned to the laboratory to be identified, measured, and weighed. Species were identified using standard taxonomic procedures. Questionable specimens were examined independently by at least two experienced fisheries scientists. The specimens we collected of pumpkinseed sunfish (*Lepomis gibbosus*) and redbreast sunfish (*Lepomis auritus*) were all small. Inasmuch as these species hybridize extensively (Scott and Crossman 1973), we did not attempt to differentiate between them and classed all specimens as "sunfish". The sex of each fish was determined by examining the gonads, and scales were removed for future age determination. If more than 20 fish of a species were collected, 20 specimens were randomly selected for sex and age determination. Cyprinids, centrarchids, and ictalurids were not sexed or aged. Fish to be analyzed for trace elements and bone composition were wrapped individually in plastic bags and frozen (-20 C) until analyzed.

Six lakes were resurveyed in the summer of 1984 to assess whether or not the fishing effort of the previous two years had been adequate to accurately describe fish species presence and abundance. Three acidic lakes (Garcock Pond, Unnamed Pond, and Eighteen pond) and three circumneutral lakes (Knox Pond, Trout Pond, and Green Lake) were selected for resurvey based on the results of the 1982 and 1983 survey. These lakes were judged to be lower in number of fish species than lakes of comparable morphometry and water chemistry. The resurvey included an overnight set of three or four 40 m experimental mesh gillnets, eight baited minnow traps (commercial dry dog food), four eel pots baited with fresh liver, and a small trap net. Each experimental gillnet was 2 m deep and had five panels of stretched mesh size 19, 25, 37, 50, and 63 mm, respectively. At least one gillnet was set in the deepest part of the lake to fish for deep-water species. The remaining gillnets were distributed along shore. The eight minnow traps were scattered in the littoral zone and the eel pots were set in the deepest areas of the lake. This protocol increased fishing effort by a factor of more than two.

QUALITY ASSURANCE

For this project, we followed the quality assurance program for water chemistry and fish sampling and analysis established for our laboratory under the Long Term Monitoring Project of the National Acid Precipitation Assessment Program, Project E1-15. The program includes (1) routine service and maintenance of analytical instruments, (2) analysis of blanks, laboratory-prepared standards, and EPA-supplied quality assurance standards, (3) calculation of water sample ion balance, and (4) establishment of standard procedures for sample tracking, data recording, and transfer. The results of the internal laboratory quality assurance program (Table 2) demonstrate acceptable precision and bias. Linear regression analysis of ion balance using the sum of cations as the dependent variable gave the following equation:

$$\text{sum of cations} = 1.30 + 1.06 \text{ sum of anions}$$
$$(r^2=0.87,\ p<0.0001,\ N=107)$$

The intercept and slope were not significantly different from 0 and 1, respectively (t-test, $p<0.05$).

Table 2. Results of the internal laboratory quality assurance program.

			Precision[a]		Bias[b]		Blank	
Parameter	N	Repeatability	Mean	Range	Mean	Range	N	Mean
pH	31	±0.01 units	±0.65%	0-1.8%	-3.56%	0.0 - +8.3%	11	5.61 units
alkalinity	25	±1.0 µeq/l	±14.90	0-15.9	-4.23	-5.1 - -3.2	8	-0.36 µeq/l
conductance	20	±1 µS/cm	±8.70	0-13.5	+1.11	-5.0 - +5.0	8	0 µS/cm
Ca	74	±0.01 ppm	±1.04	0-2.6	-1.62	-11.1 - +3.4	16	0.001 ppm
Mg	44	±0.01 ppm	±1.76	0-3.6	+1.79	0.0 - +3.6	16	0.003 ppm
K	56	±0.01 ppm	±2.10	0-5.2	-0.39	-2.0 - +9.1	16	0.005 ppm
Na	48	±0.01 ppm	±0.90	0-3.1	+0.71	-5.9 - +8.1	16	0.007 ppm
Al	45	±3 ppb	±7.28	0-14.6	-1.43	-14.6 - +4.8	16	3.5 ppb
Cl	55	±2.55 µeq/l	±2.55	0-8.1	+0.24	-3.3 - +4.2	15	0.30 µeq/l
NO_3	55	±1 µeq/l	±5.30	0-27.4	-1.31	-8.8 - +9.0	15	0.02 µeq/l
SO_4	55	±1 µeq/l	±1.59	0-3.6	+1.63	-1.3 - +6.7	15	0.11 µeq/l
ion balance	148	±2%	±1.83	0-7.4	+3.37	-13.0 - +29.0	-	-

[a] Precision = ((2 X std dev)/mean value) X 100

[b] Bias = ((mean value) - (reference value)/(reference value)) X 100, calculated from spike recoveries and EPA Quality Assurance samples.

PREDICTING LAKE CHEMISTRY

The lakes surveyed ranged in mean pH from 4.4 to 7.0 and varied widely with respect to all chemical variables measured (Table 3). The major water chemistry variables that are associated with acidity were not clearly related to bedrock class or soil class (Table 4). The non-sensitive bedrock classes 3 and 4 and the non-sensitive soil class NS contained only non-sensitive lakes, whereas the sensitive bedrock classes 1 and 2 and sensitive soil classes SS1 and SS2 contained lakes that spanned nearly the entire range of chemical conditions encountered. It appears that acidic lakes or lakes with low ANC are found only in sensitive bedrock and soil areas, but that these areas also contain many circumneutral or alkaline lakes as well. This is similar to the finding of an earlier study in which we surveyed the water chemistry of headwater lakes and streams in New England (Haines and Akielaszek 1983). Thus we have found that knowledge of bedrock and soil characteristics does not enable us to predict the acidity and ANC of drained lakes under 50 ha surface area any better than for all types of lakes in the northeastern U.S.

Detailed modeling of three Adirondack Mountain, New York, lakes that were located in areas with similar bedrock and soils indicated that watershed hydrologic factors related to contact time between influent water and watershed soil and till were the primary factors governing lake acidity (Chen et al. 1984; Peters and Murdoch 1985; Schofield et al. 1985). Eilers et al. (1983) found that Wisconsin lakes could be separated into three clusters controlled by hydrology: surface runoff-, groundwater-, and precipitation-dominated. Only precipitation-dominated lakes were potentially sensitive to acidification. None of our lakes were of this type. Buso et al. (1984) evaluated the ability of four models to predict the acidity status of six New Hampshire lakes and concluded that none were successful. Conversely, LaChance et al. (1985) found a strong association between bedrock lithology and water chemistry for southern Quebec lakes. We conclude that bedrock and soil composition characteristics may be useful to indicate where acidic and low ANC lakes do not occur, but are rather poor indicators of the location of individual acidic lakes. Application of models such as the ILWAS model is more likely to predict lake acidity accurately.

Seven of the lakes we surveyed had previously been surveyed for pH and in some cases alkalinity (Table 5). The mean pH in five out of seven lakes apparently increased between sampling times, but alkalinity apparently decreased over the same period. Previous water chemistry data were collected by colorimetric pH determinations and methyl orange alkalinity titrations. Colorimetric pH determinations are less precise than electrometric methods but if used properly may yield unbiased results (Haines et al. 1983). Inasmuch as the investigators did not record which method or indicator was used to collect the previous pH data, we cannot evaluate the accuracy of these data, or lack thereof. Improperly used, pH indicators can drastically change the pH of water that is low in ANC (Blakar and Digernes 1984; Buso et al. 1984; Haines et al. 1983). Moreover, methyl orange alkalinity titrations overestimate true alkalinity for waters of low ANC (Kramer and Tessier 1982), but the degree of error is

Table 3. Limnological characteristics of the 22 study lakes. Values are the arithmetic means for all surface and bottom samples and all dates combined.

Name	pH	Cond.	Al	Alk	Ca	Na	Mg	K	NO_3	SO_4	Cl	Sum[a]	Color
	(units)	(µS/cm)	(µg/l)	<---------------------------(µeq/l)--------------------------->									(units)
Mud	4.4	26	393	-37	33	96	29	8	8	86	109	211	20
Cloud	4.8	21	271	-14	34	26	25	9	9	97	27	112	10
Crater	4.8	16	296	-10	13	21	17	6	4	76	18	81	0
Lost	5.4	18	163	6	67	34	24	10	6	78	22	135	30
Garcock	5.5	20	63	18	94	36	30	7	36	76	26	156	40
Horseshoe	5.6	17	51	7	70	40	28	6	23	83	26	140	30
Browns	5.8	21	123	22	73	77	29	5	2	63	49	171	40
Unnamed	5.9	17	66	23	73	34	28	11	5	45	26	135	60
Eighteen	6.0	14	42	23	47	39	27	7	12	60	24	118	10
Little Hurd	6.0	20	83	31	94	43	23	12	12	97	22	165	10
Davis	6.1	26	129	64	100	61	35	10	7	80	40	199	60
Fogg	6.1	13	33	19	46	28	44	9	4	64	18	120	10
Johnston	6.1	15	39	28	52	38	39	8	2	71	22	134	10
Knox	6.2	22	83	43	77	84	29	13	1	72	47	194	40
Little Fisher	6.3	25	128	46	123	41	60	8	3	117	14	231	40
Twin	6.3	22	24	57	102	44	28	11	3	93	23	185	10
Bear	6.4	21	60	82	102	65	26	9	3	28	25	183	60
Porter	6.4	20	40	46	75	76	26	13	1	69	32	175	20
Big Fisher	6.5	22	42	81	119	34	46	8	3	66	24	196	20
Upper Pug	6.7	25	42	94	126	70	41	13	1	73	28	233	20
Trout	6.8	28	45	90	107	74	40	8	5	83	21	222	10
Green	7.0	25	28	112	88	92	31	21	7	54	40	226	10

[a] Sum=Na + K + Ca + Mg + Cl + NO_3 + SO_4 + Alkalinity

not precisely known. We previously assumed a methyl orange titration endpoint pH of 4.5 and calculated a correction factor to enable comparison of methyl orange with inflection point alkalinity results, but the actual endpoint may be much lower (Kramer and Tessier 1982), or may vary depending on the reference used to determine the endpoint (unpublished data collected

Table 4. Lake chemistry contrasted by bedrock and soil acid neutralizing capacity. Means having the same superscript are not significantly different (ANOVA with Duncan's New Multiple Range Test, $p<0.05$).

		Bedrock Class*			
Variable		1	2	3	4
pH	mean	5.77^a	5.93^a	6.66^a	6.35^a
(units)	range	4.41-6.45	4.80-6.76	6.26-7.03	6.02-6.67
alkalinity	mean	27^a	32^a	84^a	57^a
(μeq/l)	range	-38 - 89	-10 - 90	45 - 114	21 - 92
conductance	mean	22^a	18^a	24^a	20^a
(μS/cm)	range	17 - 37	13 - 28	22 - 25	14 - 25
calcium	mean	78^{ab}	55^b	113^a	86^{ab}
(μeq/l)	range	33 - 108	13 - 109	89 - 125	47 - 126
	N	13	4	3	2

		Soil Class**		
Variable		SS1	SS2	NS
pH	mean	6.14^a	5.86^a	6.57^a
(units)	range	-	4.41-7.03	6.26-6.76
alkalinity	mean	39^a	32^a	76^a
(μeq/l)	range	-	-38 - 114	45 - 94
conductance	mean	21^a	20^a	25^a
(μS/cm)	range	-	13 - 37	22 - 28
calcium	mean	77^a	73^a	119^a
(μeq/l)	range	-	13 - 126	109 - 125
	N	1	18	3

[*] Bedrock Class 1=no buffering capacity, 2= minimal buffering capacity, 3= moderate buffering capacity, 4=high buffering capacity (Hendrey et al. 1980).

[**] Soil Class SS1=slightly sensitive, >50%, SS2=slightly sensitive, <50%, NS=non-sensitive (McFee 1980).

Table 5. Previous versus recent pH and alkalinity measurements for seven of the study lakes. Previous data were collected by the Maine Department of Inland Fisheries and Wildlife and are single colorimetric measurements. Recent data are for the nearest date and depth from our data and are single electrometric measurements.

	Historical				Recent			
Lake	date (mo/yr)	depth m	pH	alk µeq/l	date (mo/yr)	depth m	pH	alk µeq/l
Davis	8/59	0	6.4	-	9/82	0	6.28	44
		11	5.6	-		12	6.15	193
		($\bar{x}$)	6.0		($\bar{x}$ 3 dates)		6.16	67
Green	8/60	0	7.3	280	8/82	0	6.90	124
		3	6.1	-		2	7.15	123
		($\bar{x}$)	6.7		($\bar{x}$ 3 dates)		7.03	114
Fogg	9/66	0	6.4	80	9/83	0	6.10	22
		6	6.5	60				
		($\bar{x}$)	6.5	70	($\bar{x}$ 3 dates)		6.07	20
Big Fisher	8/63	0	6.3	160	8/83	0	6.93	108
						2	7.05	111
					($\bar{x}$ 3 dates)		6.70	94
Johnston	7/60	0	6.6	-	8/83	0	6.35	21
		16	6.0	-		15	5.73	30
		($\bar{x}$)	6.3		($\bar{x}$ 3 dates)		6.10	27
Trout	8/75	0	6.6	140	9/83	0	6.78	83
					($\bar{x}$ 3 dates)		6.76	83
Twin	8/75	0	6.3	70	9/83	0	6.65	53
		21	5.5	60		15	5.90	53
		($\bar{x}$)	5.9	65	($\bar{x}$ 3 dates)		6.33	58

in our laboratory). In light of the above considerations, we place no credence in the apparent increase in pH or decline in alkalinity.

FISH SPECIES DISTRIBUTION

INTRODUCTION

The mechanisms by which natural fish populations are eliminated from low pH lakes and rivers may include: recruitment failure due to a reduction in production of viable eggs (Beamish 1976) or mortality of embryos or larvae (Gunn and Keller 1980, 1984; Leivestad et al. 1976; Lacroix 1984), mortality of early feeding fry (Lacroix et al. 1985), or mortality of adults (Frenette and Dodson 1984; Harvey 1980; Muniz and Leivestad 1980; Rosseland et al. 1980). The primary mechanism of mortality appears to be osmoregulatory failure caused by exposure to reduced pH and elevated aluminum concentrations (Wood and McDonald 1982). Other possible effects include reduction in egg viability through alteration of calcium metabolism in adult females (Beamish 1976), disruption of the hatching process (Peterson et al. 1980, 1982; Runn et al. 1977), or reduced fecundity (Frenette and Dodson 1984). Inasmuch as different species of fish vary in their tolerance to acidity (Haines 1981), these factors will tend to eliminate the acid sensitive species, with subsequent reduction in species numbers and depauperation of fish communities (Harvey 1980, 1982; Wiener 1983).

We investigated the possible effects of acidity on fish populations in Maine lakes. Our approach was to first select a set of lakes that were similar in size and hydrology but varied with respect to pH and other water chemistry factors related to acidity, and whose fish populations had not been subject to manipulations. The lakes were surveyed using a standard protocol to determine water chemistry status and fish population characteristics. We then defined the lake morphometric and chemical variables that could be responsible for structuring the observed populations.

MATERIALS AND METHODS

The lake selection process, water chemistry sampling and analysis, and fish population assessment procedures are described above. A stepwise forward multiple regression was used to determine which lake morphometric or chemical variables had the greatest influence on the number of fish species. Next, a classification analysis was used to cluster the lakes into groups with similar fish species assemblages. Before the actual clustering analysis was run, the fish abundance data was reduced by removing species that were caught in two lakes or less (Boesch 1977). Four clustering strategies were used. A one-way nonparametric analysis of variance (Kruskal-Wallis test) was used to determine which of the variables were significantly different among the groups (Zar 1984). This was followed by a nonparametric multiple comparison Tukey test to determine between which groups the significant differences occurred (Zar 1984).

RESULTS

The second sampling of six lakes with increased effort produced no additional species in the three acid lakes (Garcock Pond, Unnamed Pond, and Eighteen Pond) and a total of nine species in the three circumneutral lakes (Knox Pond, Trout Pond, and Green Lake). All species, with the exception of one, had been caught in other lakes during the 1982-1983 field season and therefore were not first encounters. Of the nine additional populations, seven consisted of only a few individuals and one consisted of 17 individuals. Only golden shiner were collected in appreciable numbers, in Trout Pond and Green lake. In addition, three species caught during the 1982-1983 survey in the three circumneutral lakes were not recaptured during the 1984 season.

A total of 2,527 fish representing 20 species and 10 families were collected (Table 6, Figure 2). Three lakes, Crater Pond (pH 4.8), Cloud Pond (pH 4.8), and Mud Pond (pH 4.4), were devoid of fish. In the remaining 19 lakes, golden shiner (Notemigonus crysolucas), brook trout (Salvelinus fontinalis), and white sucker (Catostomus commersoni) were the most common species and were caught in 11, 10, and 10 lakes respectively (Table 6, Figure 2). No fish species occurred in all 19 lakes but all lakes of pH 5.4 and above contained fish populations.

White sucker and sunfish (Lepomis gibbosus and L. auritus) were the most widely distributed species with respect to lake pH (Figure 2). Both occurred over the entire range of pH in lakes containing fish. This wide distribution was closely followed by brook trout (Figure 2). Of the species caught in five or more lakes, creek chub (Semotilus atromaculatus) occurred only in those waters with pH 5.9 and above, and common shiner (Notropis cornutus) in those of pH 6.0 and above (Figure 2).

A stepwise forward multiple regression of the nine morphological and chemical variables on number of fish species in the 22 study lakes resulted in a maximum r^2 of 0.86 for a six factor model (Table 7). However, three variables (divalent cation concentration, surface area, and maximum depth) accounted for 96% of this total. A stepwise forward multiple regression of the same variables on number of fish species in the 19 fish supporting lakes resulted in a r^2 of 0.68 for a four factor model (Table 7). Again, three variables (surface area, divalent cation concentration, and maximum depth) accounted for most of this total.

Fager's similarly coefficient together with the single linkage clustering strategy (Boesch 1977) produced the dendrogram shown in Figure 3. When the species assemblages associated with each cluster were compared, a distinct pattern became apparent (Figure 4). The two bottom clusters in Figure 3 (from Davis Pond to Browns Pond) were typified by lakes that contained few species ($\bar{X}$ = 2.6, range 1-4). The most common fish species in this group were the golden shiner and brook trout, although only two lakes contained both. With the exception of the ubiquitous golden shiner, and three lakes containing one species of dace or minnow each (Twin Lake, Fogg Pond,and Trout Pond), no cyprinids, sunfish, or white suckers were present in these lakes (Figure 4). The one exception was Bear Pond which contained common shiner and creek chub. Bear Pond was arbitrarily assigned to the top two clusters (Figure 3). Based on the general depauperate nature of the fish assemblages in the remaining eight lakes, the two bottom clusters were combined into one group, termed depauperate

Table 6. Number of individuals of each fish species collected from each lake (1982-83 data only). Lake numbers are as described in Table 1.

	Lake Number (pH in parentheses)																					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Species	(4.4)	(4.8)	(4.8)	(5.4)	(5.5)	(5.6)	(5.8)	(5.9)	(6.0)	(6.0)	(6.1)	(6.1)	(6.1)	(6.2)	(6.3)	(6.3)	(6.4)	(6.4)	(6.5)	(6.7)	(6.8)	(7.0)
Brook trout	0	0	0	0	0	1	0	0	0	7	1	28	31	0	19	13	10	0	11	0	38	0
Arctic char	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
Rainbow smelt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0
Chain pickerel	0	0	0	0	0	0	10	0	8	0	9	0	0	5	0	0	0	0	0	3	0	0
Golden shiner	0	0	0	0	273	4	11	37	6	6	0	0	1	0	0	5	29	6	7	0	0	0
Common shiner	0	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	4	25	11	0	0	1
Rosyface shiner	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N. redbelly dace	0	0	0	0	0	0	0	2	0	0	0	0	0	0	69	0	0	0	49	0	0	0
Finescale dace	0	0	0	27	0	0	0	0	0	0	0	0	0	0	61	0	0	0	24	0	0	0
Blacknose dace	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	84	0	0	0	0	0	0
Pearl dace	0	0	0	0	0	0	0	19	0	0	0	40	0	0	0	0	0	0	5	0	0	0
Fathead minnow	0	0	0	0	0	3	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
Creek chub	0	0	0	0	0	0	0	121	0	7	0	0	0	0	6	0	119	10	62	0	0	0
Fallfish	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	14	0
White sucker	0	0	0	28	0	81	0	72	0	63	0	0	0	3	76	0	0	28	129	1	0	34
Brown bullhead	0	0	0	0	0	86	1	0	0	0	0	0	0	0	88	0	0	0	1	0	0	0
Banded killifish	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Sunfish	0	0	0	28	0	3	0	0	0	2	0	0	0	50	0	0	0	114	0	24	0	65
White perch	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0
Yellow perch	0	0	0	0	0	0	66	0	0	0	0	0	0	0	0	0	0	0	0	45	0	0
TOTAL	0	0	0	83	273	185	88	251	14	158	10	68	32	58	324	103	162	183	299	78	58	100
(No. of Species)	(0)	(0)	(0)	(3)	(1)	(9)	(4)	(5)	(2)	(6)	(2)	(2)	(2)	(3)	(8)	(4)	(4)	(5)	(9)	(5)	(4)	(3)

5

Figure 2. Distribution of fish species by lake pH.

```
                                    pH

 5.4  5.5  5.6  5.7  5.8  5.9  6.0  6.1  6.2  6.3  6.4  6.5  6.6  6.7  6.8  6.9  7.0
                                                                                      a
  <---------------------- White sucker ------------------------------------------->(10)
  <------------------------ Sunfish ---------------------------------------------> (7)
  <---------------------- Finescale dace ---------------->                          (3)
       <----------------- Golden shiners ---------------->                         (11)
            <----------------- Brook trout ----------------------------->          (10)
            <----------------- Banded killifish ------------------------>           (2)
            <------------------ Brown bullhead ---------->                          (4)
            <--------------- Fathead minnow --->                                    (2)
            <--------------- Blacknose dace --->                                    (2)
           . Rosyface shiner                                                        (1)
                      <----------- Yellow perch -------------------->               (2)
                      <----------- Chain pickerel ------------------>               (5)
                           <-------- N. redbelly dace --->                          (3)
                           <-------- Creek chub --------->                          (6)
                           <-------- Pearl dace --------->                          (3)
                                <--------------- Common shiner -------------------> (5)
                                               <-------- Fallfish ------>           (2)
                                               . Arctic char                        (1)
                                                                     . White perch  (1)
                                                          Rainbow smelt .           (1)
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[a] Frequency of occurrence

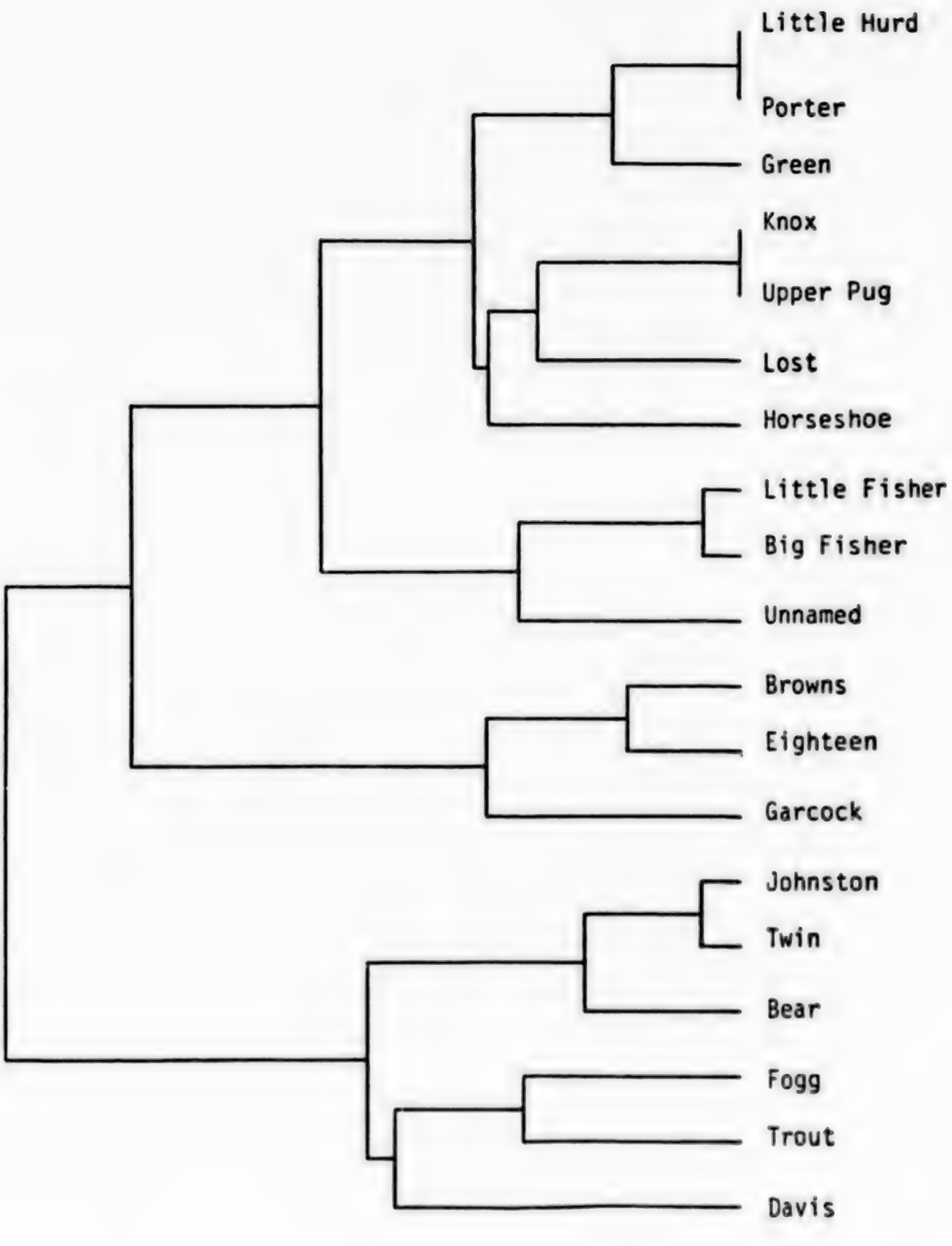

Figure 3. Cluster analysis of fish species assemblages for the 19 lakes that yielded fish.

Figure 4. Lake group and fish species occurrence based on cluster analysis. Only fish species caught in three or more lakes are shown.

	Fish Species*										
	CS	CC	SF	WS	GS	BT	BB	CP	PD	RD	FD
Cyprinid-Sucker Lakes											
Little Fisher Pond		X		X		X	X			X	X
Big Fisher Pond	X	X		X	X	X	X		X	X	X
Unnamed Pond		X		X	X				X	X	
Green Lake	X		X	X							
Knox Pond			X	X				X			
Lost Pond			X	X							X
Little Hurd Pond	X	X	X	X	X	X					
Porter Lake	X	X	X	X	X						
Upper Pug Lake			X	X				X			
Horseshoe Pond			X	X	X	X	X				
Bear Pond	X	X			X	X					
Depauperate Lakes											
Garcock Pond					X						
Browns Pond					X		X	X			
Eighteen Pond					X			X			
Johnston Pond					X	X					
Fogg Pond						X			X		
Davis Pond						X		X			
Twin Lake					X	X					
Trout Pond						X					

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*CS=common shiner, CC=creek chub, SF=sunfish, WS=white sucker, GS=golden shiner, BT=brook trout, BB=brown bullhead, CP=chain pickerel, PD=pearl dace, RD=n. redbelly dace, FD=finescale dace

Table 7. Stepwise forward multiple regression analyses with number of fish species as the dependent variable and lake morphometric and chemical factors as the independent variables.

Step	Variables	r^2	p
All Lakes			
1	Divalent cation concentration	0.58	0.0001
2	Surface area	0.74	0.0001
3	Maximum depth	0.80	0.0001
4	Aluminum concentration	0.83	0.0001
5	Drainage area	0.84	0.0001
6	Total ionic strength	0.86	0.0001
Lakes that support fish			
1	Surface area	0.27	0.021
2	Divalent cation concentration	0.47	0.006
3	Maximum depth	0.60	0.003
4	Total ionic strength	0.68	0.002

lakes, for further analyses. Most of the lakes in this category were characterized by being relatively deep and lacking extensive inshore areas. Most of them had little or no aquatic vegetation.

All lakes in the top two clusters in Figure 3 (from Unnamed Pond to Little Hurd Pond) contained sunfish, white suckers, cyprinids, or a combination of the three (Figure 4). As a result, the two top clusters were combined into one group, termed the cyprinid-sucker lakes. The number of species in this group ranged from three to nine ($\bar{X} = 5.5$). The cyprinid-sucker lakes tended to be shallow or have extensive shallow areas. Emergent and submergent vegetation was present in all of them. A third group, not shown in Figure 3, consisted of the fishless lakes.

The Kruskall-Wallis test indicated that pH, divalent cation concentration, aluminum concentration, and number of fish species per lake were significantly different among the three groups just described. The nonparametric Tukey multiple comparison tests for these variables showed that the fishless lakes differed from the other lakes in respect to their water chemistry (Table 8). The depauperate and cyprinid-sucker lake groups differed between themselves in respect to the number of fish species but not in respect to any of the measured lake morphological or water chemistry variables (Table 8).

DISCUSSION

The results of the 1984 fish collections from six lakes suggests that the standard fish collection protocol used did not systematically miss certain species, although some unknown factors seem to influence fish movement from one year to another. Despite a doubling in sampling effort, three species caught during the 1982-1983 survey seasons in the three

Table 8. Results of Tukey's nonparametric multiple comparison analysis for fish species groups with respect to the significant variables identified by Kruskall-Wallis analysis. Groups connected by a solid line are not significantly different ($p<0.05$). Groups connected by a dashed line are marginally different ($0.05<p<0.10$).

Variable	Group^a		
Number of fish species	3	1	2
		______	______
Aluminum	1	2	3
	______	______	
		------	------
pH	3	2	1
		______	______
	------	------	
Divalent cations	3	2	1
		______	______
	------	------	

^{a} group 1 = depauperate lakes, group 2 = cyprinid-sucker lakes, group 3 = fishless lakes

circumneutral lakes were not recaptured during the 1984 sampling season. Of the nine species collected during the second survey only one was caught in more than one lake: golden shiner in Green Lake and Trout Pond. The eight remaining species were only caught once. Moreover, only two of the nine species (golden shiner and northern redbelly dace Phoxinus eos) were caught in any appreciable numbers (136 and 17 respectively). The remaining seven species were represented by only a few fish and were apparently quite rare in these lakes. The golden shiner populations in Green Lake and Trout Pond were the only important populations that were missed. This species moves in schools in open lake areas (Hall et al. 1979; Scott and Crossman 1973), which could have been missed by our collecting gear. This has also occurred in lakes in the Adirondack Mountain region of New York. For example, Woodhull Lake was surveyed five times between 1931 and 1981. The collections contained six to eight fish species, of which four were present in every collection. Golden shiner appeared in only two of the collections and were very abundant in one of these (1978), indicating that the species was probably present for a long period (FIN database, J. Baker, North Carolina State University, personal communication).

Of the fish species collected in five or more lakes, white sucker and sunfish were collected at the lowest pH (5.4), closely followed by golden shiner (5.5) and brook trout (5.6). Creek chub (pH 5.9) and common shiner (6.0) were the least acid tolerant, although the differences were small. Brook trout have been widely reported to occur in acidic lakes (Altshuller and Linthurst 1984). In a survey of Vermont lakes similar to the ones surveyed by us, Langdon (1983) collected brook trout from a lake of pH 4.67. Harvey (1980) found white sucker reproducing in lakes of pH 5.0. Langdon (1983, 1984) collected this species at pH 5.48, and Schindler et al. (1985) found that reproduction ceased at about pH 5.1 in a lake acidification experiment. Golden shiner were collected at pH 5.1 by Harvey (1980) and Langdon (1983, 1984). Of the two less acid tolerant species, common shiner were not collected below pH 5.6 by Harvey (1980), and creek chub were not collected below pH 5.8 by Langdon (1983, 1984). Harvey (1980) and Rahel and Magnuson (1983) reported that common shiner were not present in lakes of pH below 5.7 and 6.2 respectively. The observed distribution of creek chub and common shiner in our survey may be a result of their greater sensitivity to lower pH water. The fish distribution in the 22 lakes therefore confirms the observation made by other researchers: the acid-sensitive species, which include most cyprinidae, tend to be restricted to high pH lakes, while the more resistant species can survive in lakes of lower pH.

The multiple regression analysis indicated that lake divalent cation concentration accounted for most of the variation in number of fish species when all 22 lakes were included in the data set. Wright and Snekvik (1978) showed the importance of divalent cations (particularly calcium) in determining brown trout (Salmo trutta) population status in 700 Norwegian lakes. Moreover, Wright and Snekvik (1978) reported that fishless lakes predominated at low pH (pH<4.5) and low calcium concentrations (Ca<20µeq/l). The average calcium concentration in the three acidic fishless lakes was 27 µeq/l versus 78 µeq/l and 92 µeq/l in the depauperate and cyprinid-sucker lakes, respectively. Water chemistry variables related to acidity (i.e., pH, aluminum) appear to be important in determining the presence or absence of fish (Schofield 1977; Baker and Schofield 1980; Driscoll et al. 1980). Both these variables differed significantly between the fishless lakes and the lakes that support fish. Low pH levels and aluminum concentrations as low as 100 µg/l have been shown to be toxic to certain fish (Muniz and Leivestad 1980; Schofield and Trojnar 1980). The average aluminum concentration for the three fishless lakes was 320 µg/l, versus 70µg/l for the remaining lakes. We measured only total aluminum, which includes the inorganic monomeric form that is thought to be the most toxic to fish (Driscoll et al. 1980). Color (dissolved organic carbon) levels are very low in the fishless lakes, and recent measurements indicate over half of the total aluminum concentration is labile monomeric (Haines, unpublished data).

For lakes supporting fish, the multiple regression analysis indicated that surface area, divalent cation concentration, and maximum depth accounted for most of the variability in the number of fish species among the lakes (Table 8). The model was a poor predictor as it accounted for only two thirds of the total variability. The influence of surface area on number of fish species has been noted before (Harvey 1975, 1978; Rahel and Magnuson 1980; Tonn and Magnuson 1982; Eadie and Keast 1984) and is a problem because it may be difficult to distinguish the influence that surface area has on species number from that of other variables. Both maximum depth and surface area probably are measures related to habitat diversity

The processes responsible for producing the species assemblages described in the lakes supporting fish are not known. The hypothesis of unequal accessibility, which could result in different species assemblages (Rubec 1975), can be rejected. All our lakes were drained lakes, with permanent outlets. Further, lake elevation was not a significant variable in determining fish species numbers. The lack of minnows and sunfish in the depauperate lakes could be due to the fact that most of these lakes tended to be deep, unproductive, and devoid of inshore areas. Extensive shallow and weedy areas, habitats preferred by both cyprinids and centrarchids (Moyle 1973; Werner et al. 1978), were lacking. The paucity of species in these lakes could also be a reflection of the lack of structural heterogeneity and adequate food supplies (Menge and Sutherland 1976; Werner et al. 1978; Eadie and Keast 1984; Rahel 1984). It is unlikely that the absence of both cyprinids and sunfish from the depauperate lakes is due to some biotic interaction, such as predation. Tonn and Magnuson (1982) noted the absence of cyprinids from small Wisconsin lakes with suitable habitats and attributed this to the presence of large piscivores such as largemouth bass (*Micropterus salmoides*) and northern pike (*Esox lucius*). In the eight depauperate lakes of this study, both the chain pickerel (*Esox niger*) and brook trout are piscivorous. But chain pickerel were only caught in three of those eight lakes and only small numbers. Brook trout occurred in 5 of 11 cyprinid-sucker lakes and chain pickerel in an additional two, all of which contained several species of minnows and sunfish.

Finally, although no strong relationship could be established between number of fish species and water chemistry in lakes that support fish populations, it is not implied that such a relationship does not exist. It was shown that certain minnow species may become affected when lake pH reaches below 6. The reason a more pronounced influence was not detected in this study is probably because only three of the 19 lakes that support fish had a pH below 5.8.

FISH TRACE ELEMENTS AND IONS

INTRODUCTION

The primary mechanism by which individual fish are affected by environmental acidification is through disruption of osmoregulation (Wood and McDonald 1982). Both elevated hydrogen ion and aquo aluminum concentration, singly and in combination, reduce the influx of ions such as sodium and chloride, probably through disruption of active uptake mechanisms (Brown 1983; McDonald 1983; McWilliams 1980; Wood and McDonald 1982). The toxic effect is reduced by increasing concentrations of divalent cations (primarily calcium) in the external medium (Brown 1982; McDonald 1983; McWilliams 1982; Wood and McDonald 1982). Fish exposed to reduced pH and calcium concentrations in laboratory experiments lose a sufficient quantity of ions so that plasma (McDonald and Wood 1981; Hobe et al. 1984) or plasma and whole body (Fraser and Harvey 1984) concentrations of sodium and chloride are reduced. Fraser and Harvey (1984) suggested that whole body ion concentrations would be a better field measurement of osmoregulatory stress because handling causes sufficient stress to result in massive ion losses in fish.

Fish from acidic surface waters often contain elevated concentrations of toxic trace metals as compared to the same species from circumneutral pH or high alkalinity waters. The metals most frequently reported in elevated concentrations in fish are mercury, cadmium, and lead (Akielaszek and Haines 1981; Jernelov 1980; Suns et al. 1980; Wiener 1983). These and other metals (e.g., zinc) are presumed to be mobilized by fossil fuel combustion and industrial processes, atmospherically transported, and deposited to lakes along with hydrogen ion and sulfate (Battarbee et al. 1985; Evans and Rigler 1985; Galloway and Likens 1979; Norton et al. 1981; Wolff and Peel 1985). Acidification may also increase the concentration or availability of naturally occurring trace metals, such as aluminum.

We analyzed selected white suckers from four lakes of varying pH for whole body trace metals and major cations. Fish metal and ion concentrations were compared to lake chemistry variables and to fish size.

MATERIALS AND METHODS

White sucker, the most widely distributed fish species in our lakes, was selected for these analyses. Four lakes (Green, Lost, Horseshoe, Unnamed) spanned the pH range of lakes in our data set that contained fish (Table 9). Five fish of age 3 and of similar size were selected from each lake (Table 10). The gastrointestinal tract was removed to reduce variation in trace element content. Gastrointestinal tracts of fish, especially of bottom feeding species, contain high and variable concentrations of some trace metals, especially aluminum, because of unincorporated gut contents (Brumbaugh and Kane 1985). In addition, eight vertebrae were removed from each fish for analysis of bone strength and

Table 9. Mean and standard error of chemical variables for the four lakes from which fish were analyzed for trace elements, bone composition, and gill histology. Means with the same superscript letter are not significantly different (ANOVA with Duncans New Multiple Range Test, $p<0.05$).

Variable	Green	Unnamed	Horseshoe	Lost
pH (unit)	6.99 ± 0.09^{a}	5.88 ± 0.09^{b}	5.64 ± 0.02^{bc}	5.42 ± 0.04^{c}
alkalinity (µeq/l)	108 ± 2.7^{a}	23 ± 1.9^{b}	7 ± 0.5^{c}	5 ± 0.8^{c}
conductance (µS/cm^{3})	24 ± 0.3^{a}	17 ± 0.6^{b}	16 ± 0.3^{b}	19 ± 0.8^{b}
color (Pt/Co unit)	10 ± 0^{a}	64 ± 2.8^{b}	24 ± 1.5^{c}	35 ± 1.2^{d}
calcium (µeq/l)	85 ± 2.0^{a}	71 ± 2.5^{b}	70 ± 1.5^{b}	70 ± 1.5^{b}
magnesium (µeq/l)	30 ± 0.8^{a}	28 ± 1.5^{a}	28 ± 0.5^{a}	24 ± 1.1^{b}
aluminum (µg/l)	$28+3.4^{a}$	$66+5.3^{b}$	$51+2.5^{b}$	$163+11.3^{c}$

Table 10. Differences in trace element concentrations of whole eviscerated white suckers from four Maine lakes. Values are mean concentrations with standard errors from replicate measurements of five fish per lake. Trace element concentrations are expressed as µg/g dry weight. Means with the same superscript letter are not significantly different (ANOVA with Duncan's New Multiple Range Test, $p<0.05$).

	Lake			
Variable	Green	Lost	Unnamed	Horseshoe
Al	2.45 ± 0.506^{a}	3.18 ± 0.298^{a}	6.09 ± 3.060^{a}	4.01 ± 0.524^{a}
Cd	0.03 ± 0.0004^{a}	0.12 ± 0.0105^{b}	0.03 ± 0.0023^{a}	0.07 ± 0.0033^{c}
Hg	0.14 ± 0.007^{a}	0.38 ± 0.008^{b}	0.13 ± 0.003^{a}	0.36 ± 0.032^{b}
Pb	0.66 ± 0.056^{a}	1.55 ± 0.078^{b}	0.58 ± 0.036^{a}	2.32 ± 0.139^{c}
Zn	85.9 ± 2.51^{a}	69.6 ± 0.86^{b}	58.6 ± 1.14^{c}	92.0 ± 1.78^{d}
Na	3215 ± 92^{a}	3173 ± 84^{a}	$2796+88^{b}$	4190 ± 73^{c}
K	$10615+250^{a}$	$10390+171^{a}$	$10818+183^{a}$	$14370+257^{b}$
length (mm)	334 ± 3.4	306 ± 2.8	308 ± 3.1	332 ± 8.8
weight (g)	403 ± 10.7	333 ± 13.3	349 ± 15.3	361 ± 28.8

biochemical composition. The remainder of each fish was chopped into small sections with a large knife, then blended for 20 min. in a polypropylene container fitted with a teflon blade assembly. All equipment was washed in the following sequence between samples: detergent and tap water, 10% HCl, ultrapure water, distilled acetone. Approximately 100 g of homogenate was lyophilized and then dry blended for 10 min. Samples were stored in polyethylene bags in a dessicator until analyzed. Duplicate 0.5 g subsamples of dry homogenate were digested in 3 ml of 16 M HNO_3 in sealed pressure reaction tubes heated to 70 C for 48 hr. Digestate was diluted to 50.0 ml with 1% HCl.

Aluminum, cadmium, and lead were analyzed by graphite furnace atomic absorption spectrophotometry (AAS), aluminum by four point standard additions, and cadmium and lead by direct calibration with aqueous standards. Mercury was determined by automated cold vapor AAS, and zinc by routine flame AAS. Sodium and potassium were determined by flame atomic emission. Detection limits (µg/g dry weight) were as follows: Al=0.2, Cd=0.005, Hg=0.01, Pb=0.2, Zn=2.0, Na=100, K=200. The quality assurance program involved analysis of NBS certified reference materials, in-house reference materials, and spiked samples. Differences in fish trace element concentrations among lakes were tested with analysis of variance. For those elements that differed significantly ($p<0.05$), stepwise forward multiple regression was used to test the relationship of fish trace element concentration to fish size and lake physical and chemical factors.

RESULTS

The mean and range of recovery of trace metals from reference materials were as follows: Al=100% (100%), Cd=100.1% (100-103%), Hg=101.5% (100-110%), Pb=93.4% (77-100%), Zn=99.9% (99-100%), Na=100% (100%), K=97.3% (94-101%). The concentrations of aluminum in white suckers were not significantly different among the four lakes, but all other elements were different (ANOVA, $p<0.05$). The differences among lakes were not consistent for the different elements, however (Table 10), and relationships to lake chemical variables (Table 9) were not immediately apparent. Stepwise multiple regression analysis was performed using element concentrations in fish tissue as dependent variables, and water quality variables, log transformed water quality variables, and fish length and weight as independent variables (Table 11). Again, no factors were significantly related to fish aluminum, sodium, or potassium concentrations. Concentrations of the other elements were significantly related to chemical variables, but not to fish length or weight. The most important lake chemical variables were generally the log of alkalinity and the sum of calcium and magnesium. Color was the most important variable for fish zinc concentration.

Table 11. Stepwise multiple regression analysis of fish trace metal content versus lake chemical factors. The best one and two variable models are presented for each metal.

Fish Tissue Element	Chemical Variable	r^2	p	Regression Equation
Cd	Ca+Mg	0.48	0.0003	Cd=0.27 - 0.11 Ca+Mg
	Ca+Mg + Al	0.65	0.0001	Cd=0.17 - 0.07 Ca+Mg + 0.0003 Al
Hg	log alk	0.44	0.0007	Hg=0.41 - 0.13 lalk
	log alk + color	0.61	0.0001	Hg=0.53 - 0.16 lalk - 0.002 color
Pb	log alk	0.58	0.0001	Pb=2.54 - 1.0 lalk
	log alk + color	0.72	0.0001	Pb=3.21 - 1.17 lalk - 0.01 color
Zn	color	0.42	0.005	Zn=91.1 - 0.44 color
	color + log Mg	0.53	0.005	Zn=122.2 + 66.4 log Mg - 0.40 color

DISCUSSION

Several other authors have reported that the concentrations of various trace metals in fish tissues were correlated with water pH. For example, mercury was correlated with lake pH for northern pike (Jernelov 1980; McFarlane and Franzin 1980), walleye Stizostedion vitreum vitreum (Wiener 1983), yellow perch Perca flavescens (Suns et al. 1980), pumpkinseed (Wren and MacCrimmon 1983), and white sucker (McFarlane and Franzin 1980). Cadmium was correlated with lake pH for bluegill Lepomis macrochirus (Wiener 1983) and white sucker (McFarlane and Franzin 1980), lead in bluegill (Wiener 1983), and copper in northern pike and white sucker (McFarlane and Franzin 1980). Conversely, Fjerdingstad and Nilssen (1983) failed to find such a relationship for these and other metals in several fish species from Norwegian lakes. Wright et al. (1985) found that cadmium uptake was inversely related to water calcium content for striped bass Morone saxatilis, and McFarlane and Franzin (1980) found that concentrations of cadmium, copper, and mercury in livers of northern pike and white sucker were lower in lakes that were higher in calcium content. Our findings are similar. Inasmuch as divalent cations, especially calcium, are important in mediating ion transfer across fish gills (McDonald 1983), we believe that this factor can also affect uptake of trace metals.

Mercury is different from many other trace metals because the primary form in fish, methyl mercury, is an organic compound. This may explain the relationship between mercury and color (a measure of dissolved organic carbon) in our lakes. However, color was also an important variable for fish lead concentration and was the most important variable for fish zinc concentration. The reason for these relationships is unknown. We failed to find any consistent relationship between fish size, expressed as either length or weight, and trace metal content. In a previous study we found such a relationship for mercury in several fish species from remote lakes in northern Maine (Akielaszek and Haines 1981), as did Jernelov (1980) for northern pike and Wiener (1983) for walleye. However, Suns et al. (1980) failed to find such a relationship for mercury in yellow perch.

Despite the frequent reports of net efflux of sodium and potassium from fish in acidic water (Fraser and Harvey 1984; McDonald 1983; McDonald et al. 1980; McWilliams 1982; Wood and McDonald 1982) we failed to find evidence of depletion of body reserves of these elements. Although there were significant differences in fish concentrations among lakes, these differences were not significantly related to any physical or chemical variable we measured. Lyons (1982) noted that plasma sodium concentrations were similar in yellow perch from an acidic and an alkaline lake, and McWilliams (1980) found that sodium uptake in wild brown trout from an acid river in Norway was less affected by reduced pH than that of hatchery fish. It is possible that fish adapt to gradually reduced lake pH through genetic selection and are able to maintain relatively normal body ion concentrations over a wide range in lake pH through osmotic and ionic regulation. When the homeostatic limit is reached, catastrophic ion losses may occur.

BONE STRENGTH AND COMPOSITION

INTRODUCTION

Mechanical properties of bone in all animals depend on the composition and density of the bone material. Exposure to a variety of organic and inorganic materials may disrupt normal bone development in fish by affecting either or both of these factors (Bengtsson 1975; Hamilton et al. 1981b; Holcombe et al. 1976; Mauck et al. 1978; Mehrle and Mayer 1975; Mehrle et al. 1982). Exposure to reduced pH and elevated aluminum or heavy metal concentrations may interfere with bone development through reduced calcium deposition or interference with the biochemical processes of bone development. We therefore investigated the relationship between mechanical properties and composition of bone of white suckers from lakes of varying pH.

MATERIALS AND METHODS

White suckers were selected for bone development analysis, as they were for trace metal analysis, because they occurred over the widest pH range of any species collected, and were generally present in sufficient abundance to provide an adequate quantity of testing material. Eleven to 15 fish of similar size from each of four lakes (Green, Lost, Unnamed, Horseshoe) were selected for analysis, five of which were also used for trace element analysis. Whole fish were X-rayed and the radiographs examined for deformed vertebrae. Eight vertebrae were dissected from each fish and subjected to mechanical testing following the methods of Hamilton et al. (1981b). Following mechanical testing, vertebrae were analyzed for collagen by the method of Flanagan and Nichols (1962), hydroxyproline (Woessner 1961), proline (Troll and Lindsley 1955), calcium (Gitelman 1967), and phosphorus (Fiske and Subbarow 1925). Vertebral density was calculated as mean dry weight per mean volume of vertebra.

RESULTS

Visual evaluation of radiographs revealed no deformed vertebrae in any fish. However mechanical properties of bone varied significantly among locations (ANOVA, $p<0.05$). Rupture, elastic limit, and modulus of elasticity were significantly higher in Green Lake fish than in fish from the remaining three lakes (Table 12). Similarly, proline and proline/hydroxyproline ratio were significantly higher in fish from Green Lake. Bone calcium was slightly higher in Green Lake fish than in fish from either Unnamed or Lost ponds, but fish from Horseshoe Pond had higher bone calcium than did those from Green Lake. Water quality of Green Lake

Table 12. Bone biochemical and mechanical properties for white sucker from four Maine lakes. Values are means with standard errors. Means with the same superscript letter are not significantly different (ANOVA with Duncan's New Multiple Range Test, $p<0.05$).

	Locations			
Characteristics	Green Lake	Horseshoe Pond	Unnamed Pond	Lost Pond
Biochemical composition				
Collagen (mg/g bone)	277 ± 9^{a}	285 ± 11^{b}	275 ± 8^{a}	281 ± 10^{ab}
Proline (mg/g collagen)	167.8 ± 18.7^{a}	139.1 ± 9.5^{b}	145.6 ± 18.7^{b}	135.6 ± 18.9^{b}
Hydroxyproline (mg/g collagen)	97.3 ± 6.7^{a}	92.8 ± 6.4^{a}	94.1 ± 8.7^{a}	93.6 ± 6.0^{a}
Proline/hydroxyproline ratio	1.73 ± 0.21^{a}	1.50 ± 0.06^{b}	1.57 ± 0.22^{b}	1.45 ± 0.18^{b}
Calcium (mg/g bone)	301.6 ± 9.4^{ab}	306.0 ± 10.4^{a}	294.7 ± 13.6^{b}	294.3 ± 11.1^{b}
Phosphorus (mg/g bone)	105.0 ± 5.4^{a}	108.4 ± 5.2^{a}	103.2 ± 4.6^{a}	108.3 ± 6.8^{a}
Calcium/phosphorus ratio	2.88 ± 0.15^{a}	2.82 ± 0.11^{a}	2.86 ± 0.18^{a}	2.72 ± 0.20^{a}
Ca + P/collagen ratio	1.47 ± 0.05^{a}	1.45 ± 0.06^{a}	1.44 ± 0.06^{a}	1.43 ± 0.08^{a}
Density (mg/cm^3)	475 ± 27^{a}	473 ± 52^{a}	477 ± 85^{a}	465 ± 31^{a}
Mechanical properties				
Rupture (g-force/mm^2)	1556 ± 177^{a}	1209 ± 206^{b}	1248 ± 173^{b}	1116 ± 153^{b}
Elastic limit (g-force/mm^2)	901 ± 124^{a}	633 ± 98^{b}	686 ± 119^{b}	623 ± 81^{b}
Strain (%)	22.8 ± 3.7^{a}	25.6 ± 5.0^{a}	25.6 ± 5.6^{a}	25.4 ± 7.0^{a}
Modulus of elasticity(kg-force/mm^2)	14.8 ± 2.0^{a}	11.7 ± 1.5^{b}	11.8 ± 1.8^{b}	10.6 ± 2.1^{b}
Toughness (g-mm/mm^3)	235 ± 58^{ac}	207 ± 63^{c}	211 ± 65^{ab}	191 ± 73^{b}
Fish				
Total length (mm)	331.5±18.3	339.6±21.1	318.6±18.7	309.9±17.1
Weight (g)	387.9±53.0	379.3±64.8	371.1±71.1	336.3±54.7
Number	15	11	13	13
Lake pH (units)	7.00+0.12	5.67+0.03	5.72+0.21	5.44+0.06

varied significantly from that of the remaining three lakes with respect to pH, alkalinity, specific conductance, color, calcium, and aluminum. The three remaining lakes were not different with respect to specific conductance, alkalinity, and calcium (Table 9).

DISCUSSION

Skeletal deformities were not observed in white suckers from the four lakes included in this investigation, although such deformities have been reported for this species from acidic lakes in Ontario (Beamish 1976; Fraser and Harvey 1982). Deformities have also been produced in this species by exposure to reduced pH in laboratory experiments (Beamish 1972; Trojnar 1977). A possible causal mechanism is the demineralization of the skeleton to maintain calcium balance for osmoregulatory and reproductive needs. Fraser and Harvey (1982) reported decreased calcium concentrations in vertebrae of white suckers from three acidified lakes with pH $\leq$ 5.36. Nelson (1982) showed that rainbow trout embryos exposed to pH 4.3 had reduced ossification of the skeleton. However, Lockhart and Lutz (1976) found no significant differences in calcium concentrations in rib, muscle, skin, or scales of white suckers from the same lake where Beamish (1976) and Fraser and Harvey (1982) found skeletal deformities. However Fraser and Harvey (1982) reported that ribs and opercula were not decalcified whereas centra of vertebrae were. This suggests that the calcium dynamics of different bone types may differ. Our results demonstrate a trend of reduction in bone calcium in fish from acidic lakes, but the differences were not consistent. Nonetheless, this reduction in calcium may be responsible in part for the altered mechanical properties of bone from these fish.

We have demonstrated a significant reduction in proline concentrations in fish from the three more acidic lakes. There was also a nonsignificant trend of reduction in hydroxyproline concentrations in these fish. Hamilton et al. (1981a) found that hydroxyproline concentrations in channel catfish (*Ictalurus punctatus*) exposed to toxaphene were elevated in short-term exposure but decreased following longer exposure. This is the first report of altered amino acid metabolism in fish exposed to reduced pH, and may also be partly responsible for the impaired bone mechanical properties in these fish.

GILL HISTOLOGY

INTRODUCTION

Decreased environmental pH is physiologically stressful to freshwater fish. Reported effects include ionoregulatory disturbances (McWilliams 1980; McDonald and Wood 1981), interference with acid base regulation (Neville 1979; Packer 1979), and decreased oxygen uptake, resulting in anoxia (Packer and Dunson 1972; Ultsch et al. 1980). All of these functions are integrated in the gill. As McDonald (1983) has suggested, many of the effects of low pH on fishes can be better understood by investigating the interference of low pH with normal gill function. Although many investigations have focused on the whole animal or organ levels of effects, little work has been done on the histology of gill tissue from acid stressed fish.

Gill epithelia consists of three major cell types: respiratory epithelial cells, mucous cells, and chloride cells (Sardet et al. 1979). Mucous cells are secretory; normally a thin layer of their product coats the lamellar surface, but in some instances this becomes thickened and may interfere with gill function (Westfall 1945). Several functions have been proposed for the mucus layer (McDonald 1983), including protection of the epithelium, and maintenence of an appropriate microenvironment at the gill surface. With regard to the latter, mucus posesses considerable calcium binding ability (Marshall 1978). This may be particularly important in low pH - low calcium environments, as calcium is known to affect epithelial permeability (Evans 1985; Hunn 1985), and fish in low pH waters experience ion losses presumably due to increased gill permeability (McDonald 1983). Examination of gill epithelia with attention to possible alterations in mucous cell size or number with chronic acid stress might therefore produce information on how fish adapt to such stress.

In early studies, Daye and Garside (1976, 1980) reported on histopathological effects of low pH in brook trout and Atlantic salmon (Salmo salar), and noted separation of epithelial layers in gill lamellae and hypertrophy of mucous cells. Jagoe and Haines (1983) noted severe epithelial damage, including loss of cell surface microridges, in Sunapee trout (Salvelinus alpinus) exposed to acutely lethal pH. Laurent et al. (1985) observed no significant changes in mucous cell numbers with varying calcium concentrations in laboratory experiments. However, they did note that the gills of salmonids collected from hard water environments had fewer mucous cells than those collected from a soft water hatchery. Similarly, Mattheij and Stroband (1971) observed a great decrease in mucous cell numbers in the skin of Cichlasoma biocellatum kept in salt water. Zuchelkowski et al. (1981) reported hyperplasia of mucous cells in the skin of brown bullhead (Ictalurus nebulosis) exposed to low pH in static water bioassays. All of the above were laboratory studies, and may not accurately reflect the conditions in natural populations. Therefore, gill tissues collected from fish from high and low pH lakes were examined to detect histological differences among natural populations.

MATERIAL AND METHODS

Gills from white sucker (*Catostomus commersoni*) were excised for histological examination within 30 min. after fish were collected. Only live individuals, or those judged freshly dead on the basis of gill appearance were selected. The first two gill arches from both the left and the right sides were dissected free and immediately placed in 0.1 M Phosphate buffer, pH 7.4, (tonicity adjusted with sucrose), containing 1% gluteraldehyde and 4% formaldehyde (McDowell 1978). Tissues were stored in the fixative and refrigerated until examined. Specimens from Green Lake and Unnamed Pond, total length 26 to 41 cm, were chosen for detailed study.

For scanning electron microscopy (SEM), tissues stored in fixative were first thoroughly washed in isotonic 0.1 M phosphate buffer, and then dehydrated through a graded ethanol series to 100% ethanol. Following critical point drying under liquid carbon dioxide, they were mounted on stubs with conducting silver paste, coated with a gold-palladium mixture to a thickness of 250 nm, and viewed using an AMR 1000A scanning electron microscope at 5 KV.

For morphometric analysis, individual filaments were selected near the bend of the second gill arch, dissected free, and thoroughly washed in isotonic 0.1 M phosphate buffer. Tissues were postfixed in a mixture of 0.4% osmium tetroxide, 2.4% zinc chloride and 2.4% potassium iodide (Garcia-Romeu and Masoni 1970). Following dehydration through a graded ethanol series to 95% ethanol, the filaments were soaked for at least 18 hours in a mixture of glycol methacrylate (Hartung Associates), polyethylene glycol 400 (Fisher Scientific) and benzoyl peroxide (Fisher Scientific), and then embedded in methacrylate according to the method of Pandolph and Poulter (1978). Longitudinal sections were cut with a Sorvall JB-4 microtome set to 2 μm, mounted on acid washed glass slides, and stained with either alcian blue, periodic acid-schiffs reagent (PAS), or both (Thompson 1966).

Slides were examined using a Wild M20 microscope equipped with a drawing tube, at 300 X. Measurements of cell size and counts of cells within tissues were made utilizing a dedicated microcomputer with digitizing tablet (Zeiss Videoplan). Cells were counted and measured in randomly selected fields consisting of the area defined by three secondary lamellae, and three interlamellar spaces on each side of the primary lamella. The most proximal region of the filament, about 10% of the total filament length, was excluded, as was the extreme distal region where there were no secondary lamellae. Data were analyzed using the Statistical Analysis System (SAS) running on an IBM 370 mainframe computer.

RESULTS

Using SEM (Figure 5a), gills from the high pH lake appeared free of mucus and debris. Cell junctions and microridges were clearly visible. Gills from the low pH lake had much more material on the surfaces, often obscuring detail (Figure 5b). Surfaces appeared more irregular, possibly

Figure 5a. White sucker gill secondary lamellae. Fish collected from Green Lake, mean pH 7.0. Bar=10 microns.

Figure 5b. White sucker gill secondary lamellae. Fish collected from Unnamed Pond, mean pH 5.9. Bar=10 microns.

due to some swelling of epithelial cells. Numerous pits or pores were noted on the surfaces of the high pH gills (Figure 6a). Subjectively, these were less abundant on the lower pH gills, but when present, appeared morphologically identical (Figure 6b).

Unambiguous identification of mucous cells was necessary for morphometic analysis, so histochemical staining procedures specific for mucopolysaccharides were used. Mucous cells stain a very distinct blue color upon treatment with alcian blue, and were easily identified. These cells were also PAS positive. Alcian blue staining was the simpler procedure, and was chosen for routine use.

Initially, counts of a large number of fields were made on a single slide, from an individual from Green Lake. A cumulative mean score was calculated from each sucessive field. Based on a graphical analysis to locate the convergence of plotted cumulative means, a sample size of five fields per slide was selected. Next, four slides were counted per filament, for four filaments in the same individual, and the data analysed by a nested analysis of variance. Variation between slides was found to be low, so two slides per filament was judged adequate, with three filaments per individual. Nested analysis of variance was again performed on the final data, consisting of counts from two locations, five individuals per location, three filaments per individual, two slides per filament, and five fields per slide. Inter-individual variation is very small compared to between location and within individual variation (Table 13). Therefore, the experimental design used a smaller number of individuals relative to a larger number of measurements per individual.

Table 13. Nested analysis of variance of mucous cell counts.

Level	df	Mean Squares	Variance Component	Percent
Total	299	192.2	219.0	100
Location	1	8237.3	49.4	22.6
Individual	8	826.9	0.4	0.2
Filament	20	815.2	56.3	25.7
Slide	30	252.2	34.8	15.9
Field	240	78.1	78.1	35.7

Mucous cell sizes varied widely within individuals. There is considerable overlap of cell sizes between individuals regardless of location (Table 14). By single classification analysis of variance, there is a small but just significant difference between locations ($F=4.02$, $p<0.05$). Mean mucous cell size in individuals from the high pH lake was larger than in individuals from the low pH lake. This may be artifactual,

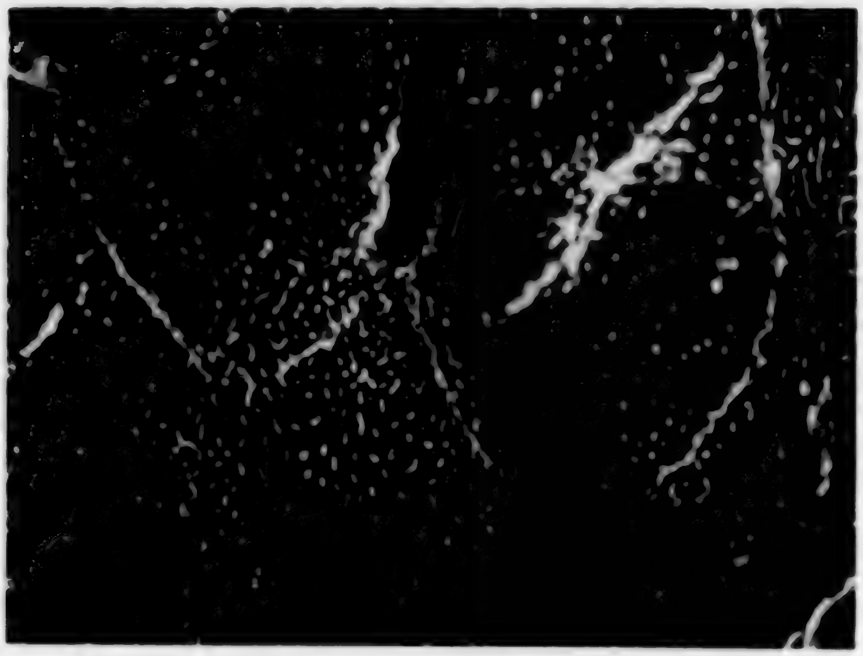

Figure 6a. Pore in secondary lamellar epithelium of white sucker collected from Green Lake, mean pH 7.0. Bar=10 microns.

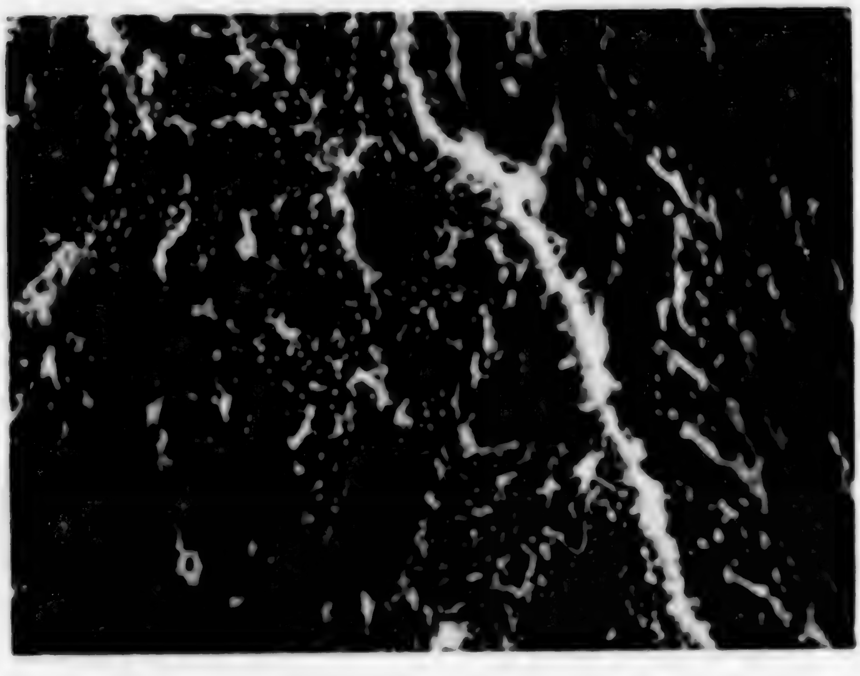

Figure 6b. Pore in secondary lamellar epithelium of white sucker collected from Unnamed Pond, mean pH 5.9. Bar=10 microns.

since the mean mucous cell size of one individual from Green Lake was much greater than any other individual. If these measurements are omitted from the analysis, the difference between locations disappears. This observation, combined with the marginally significant F value suggests that there is no real trend in size of mucous cells related to environmental pH.

However, significant differences were found in cell numbers among individuals. When counts from all individuals were pooled by location, fish from the low pH site (Unnamed Pond) were found to have more mucous cells ($p<0.001$, ANOVA) than those from Green Lake, the high pH site. Comparing individuals (Table 15), it can be seen that individuals with the highest mucous cell counts were found in the low pH lake.

Table 14. Sizes of mucous cells in sections from individuals from Unnamed Pond and Green Lake. Mean (standard deviation) in square microns, by individual, based on measurements of cells in ten fields per filament, three filaments per individual.

Location	Individual	N	Mucous Cell Area
Green Lake	1	1341	44.1 (26.9)
	2	1126	36.9 (20.3)
	3	989	25.2 (15.9)
	4	1267	36.0 (24.3)
	5	1264	32.9 (19.6)
	total	5987	35.5 (22.8)
Unnamed Pond	1	1636	37.0 (23.8)
	2	1254	32.0 (20.5)
	3	1422	35.9 (24.7)
	4	1667	34.2 (19.8)
	5	1591	34.3 (18.7)
	total	7570	34.7 (21.6)

Table 15. Numbers of mucous cells in gills of fish from Green Lake and Unnamed Pond. Mean (standard deviation) number per field, based on counts of ten fields per filament, three filaments per individual. Numbers with the same superscript are not significantly different (Student-Newman-Keuls test, $p<0.05$).

Location	Individual	Count
Green Lake	1	44.7 (13.9) ^{ab}
	2	38.0 (11.8) ^{a}
	3	32.8 (7.8)
	4	42.2 (11.3) ^{ab}
	5	42.1 (7.9) ^{ab}
Unnamed Pond	1	54.5 (14.2)
	2	41.8 (11.2) ^{ab}
	3	47.4 (18.6) ^{b}
	4	55.6 (8.6)
	5	53.0 (11.9)

DISCUSSION

Numerous studies have employed SEM to view the surfaces of fish gills of various marine and freshwater species, but none have looked at gills of white sucker. Overall appearance of these gills is similar to that of sunapee trout (Jagoe and Haines 1983) and rainbow trout *Salmo gairdneri* (Olson and Fromm 1973; Kendall and Dale 1979). Chronic exposure to lowered pH does not cause the extensive epithelial damage of acutely lethal exposure found by Jagoe and Haines (1983). Indeed, the only noticeable effects are an increase in material, probably mucus, on the cell surfaces, and possibly some minor swelling of the respiratory epithelial cells. The nature of the pits or pores observed is cryptic. Olson and Fromm (1973) presented micrographs of cells they identified as chloride cells that do not resemble the feature in question here. However, Kendall and Dale (1979) found similar structures in the gills of rainbow trout, which they proposed might be associated with chloride cells. They noted that apical crypts do not occur in the chloride cells of freshwater fish, but suggested that the pores might be openings through other epithelial cells that appear to cover chloride cells in sections. Alternatively, they noted that these may be adaptations for rapid detection of alterations in respiration or olfaction. Regardless of their function, they did not appear to be affected by a low pH environment, other than possibly being obscured by mucus.

Daye and Garside (1976) reported epithelial separation and hypertrophy of mucous cells in brook trout gills exposed to pH 5.2 and less. Hypertrophy of mucous cells was not observed here, but the pH levels of the lakes the fish were obtained from were higher then 5.2. Zuchelkowski et al. (1981) exposed brown bullheads to pH levels similar to those found in Unnamed Pond, and found an increase in the volume density of mucous cells in the epidermis resulting from an increase in cell number. It has recently been suggested that mucus produced under low pH stress may be somewhat different chemically from that produced under normal conditions. Zuchelkowski et al. (1985) observed a shift towards sulfomucin production under such conditions in the brown bullhead. While the present study did not specifically examine mucus chemistry, no difference in staining was noted among cells from the two locations.

Data presented here support the observation that hyperplasia of mucous cells occurs with chronic low pH stress. Individuals from the low pH lake had the highest number of mucous cells in their gills. This hyperplasia was probably responsible for the increased amount of material on the gill surfaces as revealed by SEM.

SUMMARY AND CONCLUSIONS

This study was conducted to assess the status of fish populations of 22 lakes in Maine representing a range of chemical conditions related to acidity. The lakes were all less than 50 ha surface area, had a permanent outlet but no permanent inlet, had low color, had not been stocked with fish or chemically reclaimed, and were located in undisturbed watersheds. The lakes selected are in areas where bedrock buffering capacity and soil cation exchange capacity represented all categories identified in the state. Each lake was sampled three times to determine water chemistry and once to assess the fish populations. White sucker from four lakes representing the range of chemical conditions of lakes that supported fish were analyzed for trace elements and bone strength and composition, and from one circumneutral and one low pH lake to examine histological parameters of the gills.

Bedrock buffering capacity and soil cation exchange capacity were not good predictive indices of lake acidity. Bedrock and soil areas that were high in acid neutralizing capacity (ANC) did not contain acid lakes, but areas that were low in ANC contained lakes of a wide range of acidity. It was possible to predict that lakes located in regions of high ANC would not be acidic, but in the absence of detailed watershed hydrology information it was not possible to predict the acidity of lakes located in regions of low ANC. Although this region receives highly acidic precipitation, only a small fraction of the lakes located in areas of low ANC were in fact acidic.

Fish populations were affected by lake acidity. Lakes with pH <5.0 were devoid of fish, but all lakes with pH 5.4-7.0 supported fish populations. Most fish species were ubiquitous in lakes above pH 5.4, except common shiner and creek chub, which did not occur below pH 5.9-6.0. The fishless lakes differed from the others primarily with respect to water chemistry variables related to acidity, such as pH, aluminum concentration, and calcium concentration. Species assemblages in lakes that supported fish were related primarily to lake productivity and habitat diversity factors (total ionic strength, maximum depth, surface area).

Fish from three acidic lakes had higher whole body concentrations of cadmium, lead, and mercury than fish from a circumneutral lake. Trace metal concentrations were correlated with factors related to divalent cation concentration rather than pH, probably because of the role these ions play in gill membrane function. There was no evidence that lake acidity affected body stores of sodium or potassium. Fish that survived in lakes of pH 5.4-6.0 showed evidence of sublethal stress as bone strength was significantly reduced, apparently as a result of reduced bone proline concentrations. There was also a tendency for weaker bones to have reduced calcium levels. Gill mucous cell numbers were increased, indicating higher mucus production in these fish, probably in response to gill irritation.

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Appendix A. Water chemistry data collected from the study lakes.

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------------------------------------------------ NAME=BEAR POND   DATE=81183 ------------------------------------------------

          STATCO     DEPTH     TEMP      PH       ALK     COND     COLOR        AL          CA        K         MG        NA

         23021366      .         .        .         .       .         .          .           .         .         .
         23021366      .         .        .         .       .         .          .           .         .         .          .
         23021366      .         .        .         .       .         .          .           .         .         .          .
         23021366      0         .       6.50      77      20        80       7.11111      107.9      7.68     26.336     71.34
         23021366      0         .       6.45      76      20        70       7.77778        .         .         .          .

------------------------------------------------ NAME=BEAR POND   DATE=82082 ------------------------------------------------

        STATCO     DEPTH     TEMP      PH       ALK     COND     COLOR        AL         CA        K         MG        NA

       23021366      0         .       6.75     111      22        50       5.00000    107.31    7.168     26.336    60.03
       23021366      0         .       6.75     112      22        50       4.88889       .        .
       23021366      1         .       6.45     112      22        40       7.33333    108.78    7.680     27.982    65.25
       23021366      1         .       6.85     115      22        40       7.66667       .        .

------------------------------------------------ NAME=BEAR POND   DATE=101883 -----------------------------------------------

       STATCO     DEPTH     TEMP      PH       ALK     COND     COLOR        AL         CA        K         MG        NA

      23021366     0.0       8.8      5.45     36.0     21        60       5.77778    103.39    9.728     27.982    63.510
      23021366     0.0       8.8      5.45     36.0     21        60       5.77778    103.39      .         .          .
      23021366     1.2        .       6.55     69.7     19        60       7.22222       .      8.448     27.159    61.335
      23021366     1.2       9.8      6.40     69.2     22        60       6.66667    101.43      .         .          .

-------------------------------------------- NAME=BIG FISHER POND   DATE=60183 ---------------------------------------------

          STATCO     DEPTH     TEMP      PH       ALK     COND     COLOR        AL          CA        K         MG        NA

         23021353      .         .        .         .       .         .          .           .         .         .          .
         23021353      .         .        .         .       .         .          .           .         .         .          .
         23021353      .         .        .         .       .         .          .           .         .         .          .
         23021353      0        13       5.75      52      24        10       5.88889     108.29     6.144     41.15      26.1
         23021353      0         .       5.80      51      20        10       5.55556       .          .         .          .

-------------------------------------------- NAME=BIG FISHER POND   DATE=80483 ---------------------------------------------

       STATCO     DEPTH     TEMP      PH       ALK     COND     COLOR        AL         CA         K         MG        NA

      23021353      0         .       7.00     107      23        20       4.00000    130.38     6.912     46.088    32.190
      23021353      0         .       6.85     109      22        20       4.33333       .          .         .          .
      23021353      0         .       7.00     107      23        20       7.77778    134.26    11.520     46.088    46.545
      23021353      0         .       6.85     109      22        20       8.55556       .          .         .          .
      23021353      2         .       7.10     116      22        30       4.44444    128.38     6.656     45.265    30.985
      23021353      2         .       7.00     106      22        30       4.44444       .          .         .          .
      23021353      2         .       7.10     116      22        30       5.11111    129.85     7.936     45.265    36.105
      23021353      2         .       7.00     106      22        30       5.55556       .          .         .          .
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------------------------------------------ NAME=BIG FISHER POND   DATE=102483 ------------------------------------------

      STATCO      DEPTH    TEMP      PH      ALK     COND     COLOR        AL       CA        K         MG        NA

     23021353      0.0       .      6.25     66.9     21        20      5.0000   111.23    6.800     51.026    32.625
     23021353      0.0       .      6.35     63.7     21        30     13.8889      .        .        50.203      .
     23021353      0.0       .      6.35     63.7     21        30      5.0000      .        .          .         .
     23021353      0.5       .      6.55     65.8     21        30      3.4444      .      7.823     51.026    33.495
     23021353      0.5       .      6.65     79.7     23        30      3.8889   111.23      .        50.203      .

--------------------------------------------- NAME=BROWNS POND   DATE=62983 ---------------------------------------------

       STATCO      DEPTH    TEMP     PH      ALK     COND     COLOR        AL       CA        K         MG        NA

      23005360       0       25     5.85     12       20        40     15.0000    55.86    2.304    21.967    68.730
      23005360       0        .     5.75     13       20        40     15.0000      .        .         .         .
      23005360       2       25     5.80     19       19        40     15.5556    56.35    2.304    24.690    70.905
      23005360       2        .     5.95     14       20        40     15.4444      .        .         .         .

--------------------------------------------- NAME=BROWNS POND   DATE=90982 ---------------------------------------------

       STATCO      DEPTH    TEMP     PH      ALK     COND     COLOR        AL       CA        K        MG        NA

      23005360       0        .     5.90     21       22        40     13.6667    62.23    3.84    27.159    75.560
      23005360       0        .     5.95     30       22        40     14.1111      .        .        .         .
      23005360       2        .     5.95     27       20        50     12.6667    59.29    3.84    26.116    78.395
      23005360       2        .     5.95     26       20        50     13.7778      .        .        .

--------------------------------------------- NAME=BROWNS POND   DATE=111583 --------------------------------------------

      STATCO      DEPTH    TEMP      PH      ALK     COND     COLOR        AL        CA       K         MG        NA

     23005360       0        .      5.70     22.8     21        50     14.0000      .      8.704     36.212    83.085
     23005360       0       1.6     5.90     32.8     23        50     14.7778    92.12     .          .         .
     23005360       1        .      5.65     16.5     22        50     15.4444    91.14   8.448     36.212    81.780
     23005360       1        .      5.65     16.5     22        50     15.5556    91.14     .          .         .
     23005360       1        .      5.65     16.5     22        50     12.5556    91.14     .          .         .
     23005360       1        .      5.65     16.5     22        50     13.8889    91.14     .          .         .

---------------------------------------------- NAME=CLOUD POND   DATE=11784 ---------------------------------------------

      STATCO      DEPTH    TEMP      PH      ALK      COND      COLOR        AL       CA        K         MG        NA

     23021335       1       1.5     4.79    -15.0      20         10      34.1111   37.28    7.680     27.982    28.360
     23021335       1        .      4.65    -17.0      21         10      31.4444     .        .          .         .
     23021335       1        .      4.65    -17.0      21         10      11.6667     .        .                    .
     23021335      11        .      4.90     -5.9      19         10      22.6667     .      8.192     27.982    23.490
     23021335      11       2.6     4.92     -8.6      19         10      22.3333   35.77     .          .        23.925
     23021335      11       2.6     4.92     -8.6      19         10      22.3333   35.77     .          .        23.925
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--------------------------------------------- NAME=CLOUD POND   DATE=60183 ---------------------------------------------

       STATCO     DEPTH     TEMP      PH       ALK      COND     COLOR        AL        CA         K         MG         NA

      23021335      0         9      4.75      -13       24       10       40.8889    31.36     9.216     24.690     23.39
      23021335      0         .      4.76      -17       24       10       41.4444      .         .          .
      23021335      5         8      4.80      -14       22       10       41.4444    33.32     8.960     23.867     23.49
      23021335      5         .      4.77      -19       22       10       43.1111      .         .          .

--------------------------------------------- NAME=CLOUD POND   DATE=92983 ---------------------------------------------

       STATCO     DEPTH     TEMP      PH       ALK      COND     COLOR        AL        CA         K         MG         NA

      23021335      0        12      4.70      -10       22       10       28.4444    31.85     7.680     23.867     24.795
      23021335      0         .      4.75      -18       22       10       27.7778      .         .          .
      23021335      9        12      4.70      -13       21       10       28.4444    31.85     7.424     23.867     24.360
      23021335      9         .      4.75      -18       21       10       27.4444      .         .          .          .

--------------------------------------------- NAME=CRATER POND   DATE=11784 --------------------------------------------

      STATCO     DEPTH     TEMP      PH       ALK       COND     COLOR      AL            CA         K         MG         NA

     23021333      1         .      4.72     -16.0      16        0       46.1111         .       4.608     18.929     20.98
     23021333      1        0.4     4.75     -15.0      17       10         .          13.72       .       18.929       .
     23021333      1        0.4     4.75     -15.0      17       10         .          13.72       .       18.929       .
     23021333      6         .      4.97      -8.0      16       10       28.5556         .       6.400     20.575     20.99
     23021333      6        3.0     4.95      -8.4      17       10       29.6667      15.19       .          .          .
     23021333      6        3.0     4.95      -8.4      17       10       29.1111      15.19       .          .          .
     23021333      6        3.0     4.95      -8.4      17       10       32.3333      15.19       .          .          .
     23021333      6        3.0     4.95      -8.4      17       10       31.4444      15.19       .          .          .

--------------------------------------------- NAME=CRATER POND   DATE=60183 --------------------------------------------

       STATCO     DEPTH     TEMP      PH       ALK      COND     COLOR        AL        CA         K         MG         NA

      23021333      0        11      4.76      -14       15        0       37.0000    12.74     5.888     16.460     18.705
      23021333      0         .      4.95       -4       14        0       37.0000      .         .          .          .
      23021333      0        12      4.67      -12       16        0       27.0000    11.76     4.864     15.637     19.140
      23021333      0         .      4.85       -9       16        0       27.8889      .         .          .          .
      23021333      3         9      4.72      -17       15        0       38.7778    11.76     5.632     14.814     19.140
      23021333      3         .      4.75      -10       15        0       36.1111      .         .          .          .
      23021333      3        12      4.88       -2       16        0       27.5556    11.76     4.608     14.814     19.140
      23021333      3         .      4.80       -9       17        0       27.1111      .         .          .          .

--------------------------------------------- NAME=DAVIS POND   DATE=62883 ---------------------------------------------

       STATCO     DEPTH     TEMP      PH       ALK      COND     COLOR        AL        CA         K         MG         NA

      23011367      0        28      6.45       42       22       50       14.1111    90.16     6.912     31.271     61.335
      23011367      0         .      6.40       35       24       60       13.7778      .         .          .          .
      23011367      5        13      5.95       36       23       40       11.0000    90.57     7.424     32.920     61.065
      23011367      5         .      6.10       18       24       50       11.4444      .         .          .          .
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------------------------------------------ NAME=DAVIS POND   DATE=90292 ------------------------------------------

     STATCO      DEPTH     TEMP      PH      ALK     COND    COLOR        AL        CA        K         MG        NA

    23011367       0        17      6.30     47       25       50      9.6667     98.89     9.192    35.389    67.860
    23011367       0         .      6.25     40       25       50      9.7778       .         .         .
    23011367      12         6      6.10    192       34      110     33.6667    115.64     9.472    39.681    22.195
    23011367      12         .      6.20    194       35      120     34.5556       .         .         .         .

------------------------------------------ NAME=DAVIS POND   DATE=111593 ------------------------------------------

     STATCO      DEPTH     TEMP      PH      ALK     COND    COLOR       AL         CA        K         MG        NA

    23011367       0         .      5.90    34.8      26       60     15.2222       .      11.008    38.681    63.519
    23011367       0        1.1     6.20    38.4      25       60     14.6667    102.41      .                   .
    23011367       6         .      5.95    42.1      26       50     15.1111    101.92    11.009    38.681    63.075
    23011367       6         .      5.85    35.7      27       60     16.5556    102.90      .         .
    23011367       6         .      5.85    35.7      27       60     15.3333    102.90      .         .         .

------------------------------------------ NAME=EIGHTEEN POND   DATE=60183 ------------------------------------------

     STATCO      DEPTH     TEMP      PH      ALK     COND    COLOR       AL         CA        K         MG        NA

    23021356       0        14      5.75     21       12       20     10.5556     43.61     6.144    25.511    33.06
    23021356       0         .      6.35     34       12       20     10.1111       .         .         .         .
    23021356       4        14      5.65     12       12       20     10.5556     44.59     4.864    23.867    33.06
    23021356       4         .      5.71     10       12       20     11.2222       .         .         .         .

------------------------------------------ NAME=EIGHTEEN POND   DATE=92593 ------------------------------------------

     STATCO      DEPTH     TEMP      PH      ALK     COND    COLOR       AL         CA        K         MG        NA

    23021356       0         .      6.05     16       16        0     2.44444     43.61     5.632    26.336    36.58
    23021356       0         .      6.10     16       15        0     2.66667       .         .         .         .
    23021356       5         .      5.95     18       13        0     3.44444     43.12     5.888    26.336    36.58
    23021356       5         .      6.10     21       14        0     3.55556       .         .         .         .

------------------------------------------ NAME=EIGHTEEN POND   DATE=101793 ------------------------------------------

     STATCO      DEPTH     TEMP      PH      ALK     COND    COLOR       AL         CA        K         MG        NA

    23021356      0.0        .      6.20    28.1      13       20     1.77778       .       5.888    29.629    38.28
    23021356      0.0      11.0     6.05    19.1      17       20     1.55556     49.89     6.144       .         .
    23021356      0.0      11.0     6.05    19.1      17       20     2.00000     49.49       .         .         .
    23021356      0.0      11.0     6.05    19.1      17       20     1.77778     49.89       .         .         .
    23021356      4.2      10.9     6.45    34.9      14       20     0.88889     46.55     5.376    29.628    36.58
    23021356      4.2        .      6.20    34.3      14       20     0.88889       .         .         .         .
    23021356      4.2      10.4     6.45    34.9      14       20     2.55556     49.89       .         .         .
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------------------------------------------- NAME=FOGG POND   DATE=60183 -------------------------------------------

        STATCO     DEPTH     TEMP      PH      ALK     COND     COLOR       AL         CA        K         MG         NA

       23021359      0        13      6.25     25       12       10      4.77778    38.22     8.192     37.035     23.630
       23021359      0         .      6.00     17       12       10      5.22222      .         .          .          .
       23021359      5        13      5.90     18       12        0      6.11111    37.73     8.889     37.035     24.795
       23021359      5         .      5.90     11       12        0      6.00000      .         .          .          .

------------------------------------------- NAME=FOGG POND   DATE=91583 -------------------------------------------

        STATCO     DEPTH     TEMP      PH      ALK     COND     COLOR       AL         CA        K         MG         NA

       23021359      .         .        .       .        .        .         .          .         .          .
       23021359      .         .        .       .        .        .         .          .         .          .          .
       23021359      0         .      6.2      23       16       20      2.55556    39.69     9.984     41.15      27.405
       23021359      0         .      6.0      21       16       20      2.88889      .         .          .          .

------------------------------------------- NAME=FOGG POND   DATE=111483 ------------------------------------------

        STATCO     DEPTH     TEMP      PH      ALK     COND     COLOR       AL         CA        K         MG         NA

       23021359      0         .      6.15     16.0     13        0      4.11111      .         .        49.380       .
       23021359      0        1.1     6.30     25.1     14        0      4.11111    52.92       .        49.380       .
       23021359      6         .      5.90     16.4     12        0      3.88889      .       8.448      50.203     31.32
       23021359      6         .      6.00     17.6     13        0      4.77778    55.37       .        50.203     30.45
       23021359      6         .      6.00     17.6     13        0      4.77778    55.37       .        50.203     30.45

------------------------------------------ NAME=GARCOCK POND   DATE=11784 -----------------------------------------

       STATCO     DEPTH     TEMP      PH      ALK      COND     COLOR        AL     CA         K         MG         NA

      23021322      1         3      5.63     25.6     21       30       9.4444   100.94    5.376     31.274     31.755
      23021322      1         .      5.55     21.2     21       40      12.1111     .       5.376     32.097       .
      23021322      1         .      5.55     21.2     21       40      11.7778     .         .          .          .
      23021322      1         .      5.55     21.2     21       40      11.7778     .         .          .
      23021322      4         .      5.75     44.2     21       50      10.5556     .       6.788     33.741     12.625
      23021322      4         4      5.65     28.3     21       50      10.0000   108.37      .          .

------------------------------------------ NAME=GARCOCK POND   DATE=92383 -----------------------------------------

        STATCO     DEPTH     TEMP      PH      ALK     COND     COLOR       AL         CA        K         MG         NA

       23021322      0         .      5.79     18       20       50      4.44444    99.96     6.912     32.097     37.410
       23021322      0         .      5.80     17       19       40      4.44444      .         .          .          .
       23021322      4         .      5.23     18       18       40      6.33333    85.26     3.072     29.805     26.535
       23021322      4         .      5.15     15       18       40      6.00000      .         .          .          .
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--------------------------------------------- NAME=GADCOCK POND   DATE=101383 ---------------------------------------------

      STATCO     DEPTH     TEMP      PH      ALK     COND     COLOR       AL        CA        K        MG        NA

     23021322      0        13      5.35     -4       20       30      4.44444    93.59    7.168    30.451    35.67
     23021322      0         .      5.55     12       20       40      4.88889      .        .        .         .
     23021322      0         .      5.55     12       20       40      4.88889      .        .        .         .
     23021322      1        13      5.60     24       18       50      6.00000   109.29    8.960    31.274    35.67
     23021322      1         .      5.75     21       18       50      5.88889      .        .        .         .

--------------------------------------------- NAME=GREEN LAKE   DATE=62183 ---------------------------------------------

      STATCO     DEPTH     TEMP      PH      ALK     COND     COLOR       AL        CA        K        MG        NA

     23009365      0        25      6.30     89       23       10      3.77778    93.10    19.968   28.805    91.785
     23009365      0         .      6.65    115       25       10      3.55556      .        .        .         .
     23009365      3        25      7.85    118       24       10      3.77778    97.02    20.224   27.159    87.870
     23009365      3         .      7.69    124       24       10      4.00000      .        .        .         .

--------------------------------------------- NAME=GREEN LAKE   DATE=80582 ---------------------------------------------

      STATCO     DEPTH     TEMP      PH      ALK     COND     COLOR       AL        CA        K        MG        NA

     23009365      0        22      6.85    126       29       10      4.77778    87.71    20.224   28.805    95.265
     23009365      0         .      6.95    122       28       10      5.33333      .        .        .         .
     23009365      2        20      7.25    118       25       10      6.77778    88.69    20.736   29.629    79.735
     23009365      2         .      7.05    127       26       10      6.66667      .        .        .         .

--------------------------------------------- NAME=GREEN LAKE   DATE=103183 ---------------------------------------------

      STATCO     DEPTH     TEMP      PH      ALK     COND     COLOR       AL        CA        K        MG        NA

     23009365      0         .      7.05    102.0     23       10      2.55556      .      22.016   38.566    88.395
     23009365      0         6      6.85    102.0     24       10      3.33333    79.38      .        .         .
     23009365      0         6      6.85    102.0     24       10      2.44444    79.38      .        .         .
     23009365      3         .      6.85     99.5     22       10      2.66667      .      22.016   38.566    93.960
     23009365      3         6      6.85     98.3     23       10      1.22222    77.42    22.016      .         .
     23009365      3         6      6.85     98.3     23       10      1.55556    77.42      .        .         .

--------------------------------------------- NAME=HORSESHOE POND   DATE=92383 ---------------------------------------------

      STATCO     DEPTH     TEMP      PH      ALK     COND     COLOR       AL        CA        K        MG        NA

     23021360      0         .        .       .        .       20      5.88889    71.94    5.888    27.992    87.760
     23021360      0         .        .       .        .       20      6.11111      .        .        .         .
     23021360      2         .      5.65      9       19       20      4.88889    68.11    5.376    27.159    36.975
     23021360      2         .      5.53      6       16       20      5.22222      .        .        .         .
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---------------------------------------------- NAME=HORSESHOE POND   DATE=100681 ----------------------------------------------

                 STATCO      DEPTH      TEMP      PH       ALK      COND      COLOR     AL     CA        K     MG     NA

                23021360       0          .       5.70      7.0      16        20        .     68.60     .      .      .
                23021360       0          .       5.70      8.0      15        20        .       .       .      .      .
                23021360       0          .       5.70      8.3      15        20        .       .       .      .      .
                23021360       2          .       5.70      9.0      16        20        .     67.62     .      .      .
                23021360       2          .       5.75     13.0      15        20        .       .       .             .

---------------------------------------------- NAME=HORSESHOE POND   DATE=101781 ----------------------------------------------

        STATCO      DEPTH      TEMP       PH       ALK      COND     COLOR        AL          CA        K         MG          NA

       23021360      0.0         .       5.60      3.4       17        40       8.11111        .      5.376     39.274      37.81
       23021360      0.0        9.9      5.55      1.9       18        40       8.33333      75.95      .          .           .
       23021360      0.0        9.9      5.55      1.9       19        40       8.55556      75.95      .          .           .
       23021360      1.2        9.9      5.50      3.8       19        40       6.00000      75.46    5.376     32.097      37.81
       23021360      1.2        9.9      5.50      3.8       19        40       7.44444      75.46    5.120       .           .
       23021360      1.2        9.9      5.50      3.8       19        40       7.00000      75.46      .          .           .

---------------------------------------------- NAME=JOHNSTON POND   DATE=11784 ----------------------------------------------

        STATCO      DEPTH      TEMP       PH       ALK      COND     COLOR        AL          CA        K         MG          NA

       23021319       1          .       5.95     24.4       16        10       5.44444        .      6.656     41.973      31.755
       23021319       1         1.0      5.78     27.5       16         0       5.55556      50.47      .          .         31.120
       23021319       1         1.0      5.78     27.5       16         0       5.11111      50.47      .          .           .
       23021319      11          .       5.99     31.0       15        10       4.33333        .      6.912     42.796      33.895
       23021319      11         1.4      6.25     31.4       16        10       4.88889      53.41      .          .           .

---------------------------------------------- NAME=JOHNSTON POND   DATE=83083 ----------------------------------------------

        STATCO      DEPTH      TEMP       PH       ALK      COND     COLOR        AL          CA        K         MG          NA

       23021319       0          .       6.45      19        15         0       2.22222      49.00    9.192     37.935      39.15
       23021319       0          .       6.25      22        15         0       2.22222        .        .          .           .
       23021319      15          .       5.05      31        15        20       6.00000      52.41    7.169     38.681      32.19
       23021319      15          .       5.60      29        15        20       6.00000        .        .          .           .

---------------------------------------------- NAME=JOHNSTON POND   DATE=110883 ----------------------------------------------

        STATCO      DEPTH      TEMP       PH       ALK      COND     COLOR        AL          CA        K         MG          NA

       23021319       0          .       6.30     28.0       16         0       3.22222        .      9.216     40.327      40.990
       23021319       0         4.4      6.35     31.2       16         0       1.88889      49.99      .          .           .
       23021319      12          .       6.25     31.1       14         0       0.98989        .      6.912     39.508      30.885
       23021319      12          .       6.25     27.0       13         0       0.88889      48.51      .          .           .
       23021319      12          .       6.25     27.0       13         0       0.66667      48.51      .          .           .
```

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-------------------------------------------- NAME=KNOX POND   DATE=62183 ---------------------------------------------------

            STATCO      DEPTH     TEMP      PH      ALK     COND     COLOR        AL        CA        K         MG         NA

           23029363       0        25      6.25     29       21        30      10.2222    69.09    12.544    26.336    81.780
           23029363       0         .      6.16     33       20        40      11.0000      .         .         .          .
           23029363       5        14      5.71     31       21        40      10.4444    68.60    12.800    25.513    76.125
           23029363       5         .      5.65     24       22        40      11.2222      .         .         .          .

-------------------------------------------- NAME=KNOX POND   DATE=81082 ---------------------------------------------------

            STATCO      DEPTH     TEMP      PH      ALK     COND     COLOR        AL        CA        K         MG         NA

           23029363       0         .      6.60     40       21        30       8.7778    70.56    12.900    27.159    88.925
           23029363       0         .      6.40     46       21        30       8.3333      .         .         .          .
           23029363       7         .      5.75     37       21        30      12.2222    72.52    12.544    28.905    82.650
           23029363       7         .      5.65     41       21        30      13.4444      .         .         .          .

-------------------------------------------- NAME=KNOX POND   DATE=103183 --------------------------------------------------

            STATCO      DEPTH     TEMP      PH      ALK      COND     COLOR       AL         CA       K         MG         NA

           23029363       0         .      6.75     70.8     23        40      8.66667      .      14.944    32.92     89.610
           23029363       0         6      6.50     55.8     21        40      7.66667    85.75    14.592      .          .
           23029363       0         6      6.50     55.8     21        40      7.55556    85.75      .         .          .
           23029363       6         .      6.50     50.4     23        40      7.77778      .      13.312    32.92     85.695
           23029363       6         6      6.50     56.6     24        40      8.22222    85.75      .         .       85.695

---------------------------------------- NAME=LITTLE FISHER POND   DATE=60183 ---------------------------------------------

             STATCO      DEPTH     TEMP      PH      ALK     COND     COLOR       AL         CA        K         MG        NA

            23021354       .         .        .       .       .         .          .          .        .         .         .
            23021354       .         .        .       .       .         .          .          .        .         .         .
            23021354       0        14      6.15     62      20        20      15.8889    111.72    5.898     49.38     33.06
            23021354       0         .      5.60     27      20        20      15.0000       .        .         .         .

---------------------------------------- NAME=LITTLE FISHER POND   DATE=80883 ---------------------------------------------

             STATCO      DEPTH     TEMP      PH      ALK     COND     COLOR       AL         CA        K         MG        NA

            23021354       .         .        .       .       .         .          .          .        .         .         .
            23021354       .         .        .       .       .         .          .          .        .         .         .
            23021354       .         .        .       .       .         .          .          .        .         .         .
            23021354       0         .      6.15     39      22        50      14.3333    109.27    6.912    55.964     81.76
            23021354       0         .      6.30     40      23        50      15.7778       .        .         .
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------------------------------------------ NAME=LITTLE FISHER POND   DATE=102493 ------------------------------------------

       STATCO      DEPTH     TEMP      PH      ALK      COND     COLOR        AL        CA          K          MG          NA

      23021354      0.0      10.4     6.40     50.9      32        50       12.7778    133.77      7.680      69.955      46.980
      23021354      0.0        .      6.25     50.8      29        50       13.7778       .          .        67.986        .
      23021354      0.5        .      6.55     48.0      28        50        8.4444    135.73      7.168      69.132      47.015
      23021354      0.5        .      6.30     52.8      27        40       11.1111       .          .        68.309        .
      23021354      0.5        .      6.30     52.8      27        40       10.0000       .          .           .          .

------------------------------------------ NAME=LITTLE HURD POND   DATE=60193 ------------------------------------------

       STATCO      DEPTH     TEMP      PH      ALK      COND     COLOR        AL        CA          K          MG          NA

      23021352       0        12      5.95     26        20        10       16.0000    83.30     11.008      22.221      36.540
      23021352       0         .      5.80     21        20        10       14.7778      .          .           .           .
      23021352       5        12      6.00     26        18        10       16.3333    85.26     10.752      22.221      36.105
      23021352       5         .      5.81     22        18        10       15.6667      .          .           .           .

------------------------------------------ NAME=LITTLE HURD POND   DATE=72793 ------------------------------------------

       STATCO      DEPTH     TEMP      PH      ALK      COND     COLOR        AL        CA          K          MG          NA

      23021352       0         .      6.35     24        20         0        8.1111    97.22     10.752      21.398      39.150
      23021352       0         .      6.30     34        20         0        9.3333      .          .           .           .
      23021352      20         .      5.80     40        22        10       12.3333   101.92     10.240      24.690      43.935
      23021352      20         .      5.85     40        21        10       13.1111      .          .           .           .

------------------------------------------ NAME=LITTLE HURD POND   DATE=102493 ------------------------------------------

      STATCO      DEPTH     TEMP      PH      ALK      COND     COLOR        AL         CA          K          MG          NA

     23021352       0        9.9     6.05     32.1      22        10       3.22222    99.96     11.520      25.513      44.905
     23021352       0         .      6.35     33.5      20        10       3.00000      .          .           .           .
     23021352       0         .      6.35     33.5      20        10       5.44444      .          .           .           .
     23021352       0         .      6.35     33.5      20        10       8.44444      .          .           .           .
     23021352       0         .      6.35     33.5      20        10       4.44444      .          .           .           .
     23021352       4        9.4     5.85     39.1      20        10       7.22222    99.47     12.032      25.513      44.370
     23021352       4         .      6.15     39.6      20        10       6.88889   101.43     12.298         .

------------------------------------------ NAME=LOST POND   DATE=11784 ------------------------------------------

       STATCO      DEPTH     TEMP      PH      ALK      COND     COLOR        AL        CA          K          MG          NA

      23021351       1         .      5.18     1.2       19        30       27.8889      .        9.704      28.805      32.625
      23021351       1        2.3     5.25     2.7       20        30       22.7778    72.52      8.960         .           .
      23021351       1        2.3     5.25     2.7       20        30       24.1111    72.52        .           .           .
      23021351       1        2.3     5.25     2.7       20        30       24.1111    72.52        .           .           .
      23021351       2         .      5.20     5.0       23        40       21.1111      .        8.960      28.805      33.060
      23021351       2        2.4     5.35     3.1       24        40       21.0000    73.99        .           .           .
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--------------------------------------------- NAME=LOST POND   DATE=60193 ---------------------------------------------

     STATCO      DEPTH     TEMP      PH      ALK     COND     COLOR        AL        CA         K          MG          NA

    23021351       0        13      5.35      8       14       40       18.6667    60.27     11.009     20.575      29.710
    23021351       0         .      5.08      3       14       40       18.8889      .          .          .           .
    23021351       2        13      5.35      5       14       40       19.3333    61.74     10.752     20.575      28.275
    23021351       2         .      5.35      2       15       40       20.6667      .          .          .           .

--------------------------------------------- NAME=LOST POND   DATE=72083 ---------------------------------------------

     STATCO      DEPTH     TEMP      PH      ALK     COND     COLOR        AL        CA         K          MG          NA

    23021351       0         .      5.80      6       20       20       11.0000    59.29      9.984     23.867      38.8
    23021351       0         .      5.65      8       17       30       10.7778      .          .          .           .
    23021351       1         .      5.75     18       18       30       11.5556    61.74     10.240     23.867      38.8
    23021351       1         .      5.65      7       17       30       10.7778      .          .          .           .

--------------------------------------------- NAME=PORTER POND   DATE=62383 -------------------------------------------

     STATCO      DEPTH     TEMP      PH      ALK     COND     COLOR        AL        CA         K          MG          NA

    23009361       1        25      6.25     39       18       30       6.11111    74.97     11.776     24.69       70.035
    23009361       1         .      6.15     41       19       30       6.33333      .          .          .           .
    23009361       3        25      6.58     46       20       30       6.88889    75.46     11.776     24.69       70.470
    23009361       3         .      6.35     43       19       30       7.11111      .          .          .           .

--------------------------------------------- NAME=PORTER POND   DATE=72982 -------------------------------------------

     STATCO      DEPTH     TEMP      PH      ALK     COND     COLOR        AL        CA         K          MG          NA

    23009361       1        22      6.35     47       20       10       4.11111    65.66     10.752     22.221      73.080
    23009361       1         .      6.48     44       20       10       4.00000      .          .          .           .
    23009361       3        21      6.40     51       19       10       3.55556    63.70     11.009     22.221      72.645
    23009361       3         .      6.52     48       19       10       3.77778      .          .          .           .

--------------------------------------------- NAME=PORTER POND   DATE=103193 ------------------------------------------

     STATCO      DEPTH     TEMP      PH      ALK     COND     COLOR        AL        CA         K          MG          NA

    23009361       0         6      6.45    49.4      24       20       2.66667    73.01     10.080     29.629      80.04
    23009361       0         .      6.45    45.5      21       20       2.55556    73.50       .          .           .
    23009361       3         .      6.55    50.4      20       20       2.88889      .       13.312     30.451      75.69
    23009361       3         6      6.50    48.0      20       20       4.00000    73.50       .          .           .
    23009361       3         6      6.50    49.0      20       20       3.33333    73.50       .          .           .

--------------------------------------------- NAME=TROUT POND   DATE=90983 --------------------------------------------

     STATCO      DEPTH     TEMP      PH      ALK     COND     COLOR        AL        CA         K          MG          NA

    23029364       .         .        .       .        .        .          .          .          .          .           .
    23029364       .         .        .       .        .        .          .          .          .          .           .
    23029364       0         .      6.80     81       29       20       7.22222   106.82      7.024     42.[illegible]06      70.47
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------------------------------------------------ NAME=TROUT POND   DATE=90893 ------------------------------------------------

                     STATCO     DEPTH    TEMP     PH     ALK     COND    COLOR      AL        CA     K     MG     NA

                    23029364      0        .     6.75    84       29      20     7.22222      .     .     .      .

------------------------------------------------ NAME=TROUT POND   DATE=101292 -----------------------------------------------

         STATCO     DEPTH    TEMP      PH      ALK     COND    COLOR       AL         CA         K         MG         NA

        23029364      0        9      6.75     93       28      10      3.55556    106.33     9.216     40.327     76.995
        23029364      0        .      6.75     96       27      10      4.00000       .         .          .          .
        23029364      2        9      6.75      .       27      10      3.88889    105.35     8.960     38.681     79.300
        23029364      2        .      6.75     96       27      10      4.22222       .         .          .          .

------------------------------------------------ NAME=TWIN POND   DATE=11784 -------------------------------------------------

         STATCO     DEPTH    TEMP      PH      ALK     COND    COLOR       AL         CA         K         MG         NA

        23021320      1        .      6.42     50.6     22       0      2.66667       .        9.872     27.159     81.760
        23021320      1       0.3     6.35     70.9     22       0      2.33333    106.82       .          .          .
        23021320      1       0.3     6.35     70.9     22       0      2.33333    106.82       .          .          .
        23021320      1       0.3     6.35     70.9     22       0      2.33333    106.82       .          .          .
        23021320     18        .      6.25     61.3     21      10      1.33333       .       10.996     27.159     82.135
        23021320     18       2.9     6.52     63.5     22      10      1.00000    108.37       .          .          .
        23021320     18       2.9     6.52     63.5     22      10      1.66667    108.37       .          .          .
        23021320     18       2.9     6.52     63.5     22      10      1.66667    108.37       .          .          .
        23021320     18       2.9     6.52     63.5     22      10      1.66667    108.37       .          .          .

------------------------------------------------ NAME=TWIN POND   DATE=90293 -------------------------------------------------

         STATCO     DEPTH    TEMP      PH      ALK     COND    COLOR       AL         CA         K         MG         NA

        23021320      0        .      6.60     53       21      10      2.66667     95.55    11.268     30.851     87.850
        23021320      0        .      6.70     53       21      10      2.66667       .         .          .          .
        23021320     15        .      5.85     53       24      10      5.66667     96.08    10.752     29.629     82.195
        23021320     15        .      5.95     52       23      10      5.66667       .         .          .          .

------------------------------------------------ NAME=UNNAMED POND   DATE=60193 ----------------------------------------------

         STATCO     DEPTH    TEMP      PH      ALK     COND    COLOR       AL         CA         K         MG         NA

        23021355      .        .       .        .       .        .         .          .         .          .          .
        23021355      .        .       .        .       .        .         .          .         .          .          .
        23021355      0       15      5.25      8       12      50      8.55556     55.37    11.008     20.575     22.195
        23021355      0        .      5.15     12       14      40      9.00000       .         .          .          .
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------------------------------------------------ NAME=UNNAMED POND   DATE=80983 ------------------------------------------------

     STATCO     DEPTH    TEMP     PH     ALK    COND    COLOR        AL        CA         K         MG        NA

   23021355       .        .       .      .       .       .           .         .          .          .         .
   23021355       .        .       .      .       .       .           .         .          .          .         .
   23021355       0        .     6.05    25      17      80       9.11111    72.93     11.008     28.805     29.59
   23021355       0        .     6.10    22      18      70       7.77778      .          .          .         .

------------------------------------------------ NAME=UNNAMED POND   DATE=101883 -----------------------------------------------

     STATCO     DEPTH    TEMP     PH     ALK    COND    COLOR        AL        CA         K         MG        NA

   23021355      0.0      9.4    6.05   24.2     19      70       6.88889    83.30     10.280     32.920    11.755
   23021355      0.0       .     6.20   32.5     19      70       6.55556      .          .        32.097       .
   23021355      1.2      9.4    6.05   30.2     19      60       8.00000    87.22      9.988     32.097    11.320
   23021355      1.2       .     6.15   35.5     18      70       8.66667      .         9.998       .         .

------------------------------------------------ NAME=UPPER PUG POND   DATE=62883 -----------------------------------------------

     STATCO     DEPTH    TEMP     PH     ALK    COND    COLOR        AL        CA         K         MG        NA

   23019362       1       25     6.75    79      25      20       5.66667   120.05     12.032     37.859    67.960
   23019362       1        .     6.59    94      24      20       5.22222      .          .          .         .
   23019362       3       24     6.45    80      24      20       5.66667   119.56     10.896     37.015    68.815
   23019362       3        .     6.25    93      23      20       5.88889      .          .          .         .

------------------------------------------------ NAME=UPPER PUG POND   DATE=82782 -----------------------------------------------

     STATCO     DEPTH    TEMP     PH     ALK    COND    COLOR        AL        CA         K         MG        NA

   23019362       1       21     6.85    91      24      10       8.66667   120.59     24.32     39.601    100.05
   23019362       1        .     6.60   101      24      10       7.77778      .          .          .         .
   23019362       4       18     6.45   100      23      20       4.22222   117.60     10.24     39.508     68.73
   23019362       4        .     6.88    97      23      20       3.88889      .          .          .         .

------------------------------------------------ NAME=UPPER PUG POND   DATE=111983 ----------------------------------------------

     STATCO     DEPTH    TEMP     PH     ALK    COND    COLOR        AL        CA         K         MG        NA

   23019362       0        .     6.95   102      32      20       1.22222   132.30     12.288     46.988    69.295
   23019362       0        .     7.10   104      31      20       1.22222      .          .        46.089       .
   23019362       0        .     7.16   104      31      20       2.44444      .          .          .         .
   23019362       3        .     7.05   101      26      10       0.44444   131.81     11.520     44.482    66.990
   23019362       3        .     7.05   101      26      10       0.88889   131.91       .          .         .
   23019362       3        .     7.05   102      26      10       2.88889   131.81       .          .         .
   23019362       3        .     7.05   101      26      10       1.55556   131.91       .          .         .
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------------------------------------------------ NAME=BEAR POND   DATE=91183 ------------------------------------------------

  STATCO     DEPTH    TEMP     PH      ALK     COND    COLOR       AL         CA        K         MG         NA       CL   NO3   SO4

 23021366      .        .       .        .       .        .        .           .         .         .          .        27    3     2
 23021366      .        .       .        .       .        .        .           .         .         .          .        28    4     2
 23021366      .        .       .        .       .        .        .           .         .         .          .              4
 23021366      0        .      6.50     77      20       80      7.00000     98.57     9.216     24.69     75.255      27    4     2
 23021366      0        .      6.45     76      20       70      7.66667       .         .         .          .        27    4     2

------------------------------------------------ NAME=BEAR POND   DATE=101893 ------------------------------------------------

  STATCO     DEPTH    TEMP     PH      ALK     COND    COLOR       AL         CA        K         MG         NA       CL   NO3   SO4

 23021366     0.0      8.8     5.45    36.0     21       60      6.22222     91.63     8.192     25.513     59.160     21    3     2
 23021366     0.0       .      6.25    43.5     20       60      6.00000     89.19       .          .          .       21    3     2
 23021366     1.2      8.8     6.40    69.2     22       60      8.44444     93.59    11.008     24.690     67.425      .    .
 23021366     1.2      8.8     6.40    69.2     22       60      6.44444     93.59       .          .          .        .
 23021366     1.2      8.8     6.40    69.2     22       60      7.22222     93.59       .          .          .        .    .

------------------------------------------------ NAME=BIG FISHER POND   DATE=60183 ------------------------------------------------

  STATCO     DEPTH    TEMP     PH      ALK     COND    COLOR       AL         CA        K         MG         NA       CL   NO3   SO4

 23021353      .        .       .        .       .        .        .           .         .         .          .        .    .     7
 23021353      .        .       .        .       .        .        .           .         .         .          .        11    .     7
 23021353      .        .       .        .       .        .        .           .         .         .          .        11    0
 23021353      0       13      5.75     52      24       10      6.11111    110.74     6.656     40.327     29.59      12    0     7
 23021353      0        .      5.80     51      29       10      6.33333       .         .         .          .        12    0     7

------------------------------------------------ NAME=BIG FISHER POND   DATE=102483 ------------------------------------------------

  STATCO     DEPTH    TEMP     PH      ALK     COND    COLOR       AL         CA        K         MG         NA       CL   NO3   SO4

 23021353     0.0       .      6.25    66.9     21       20      2.00000     98.69     6.912     46.088     33.930     18    3     6
 23021353     0.0       .      6.25    66.9     21       20      0.55556     98.69       .        45.265       .        18    3     6
 23021353     0.0       .      6.25    66.9     21       20      0.44444     98.69       .          .          .        18    3     6
 23021353     0.5       .      6.65    79.7     21       30      0.33333     99.47     8.704     45.265     87.325      .    .
 23021353     0.5       .      6.65    79.7     21       30      0.88889     99.47       .          .          .             .

------------------------------------------------ NAME=BROWNS POND   DATE=62983 ------------------------------------------------

  STATCO     DEPTH    TEMP     PH      ALK     COND    COLOR       AL         CA        K         MG         NA       CL   NO3   SO4

 23005360      0       25      5.95     12      20       40      12.3333     56.35     8.449     25.513     92.220     53    5     5
 23005360      0        .      5.75     13      20       40      12.7778       .         .         .          .        53    5     5
 23005360      2       25      5.80     19      19       40      14.6667     58.31     3.328     24.690     76.995      .    .     .
 23005360      2        .      5.95     14      20       30      14.6667       .         .         .          .             .
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------------------------------------------------- NAME=BROWNS POND   DATE=111583 ------------------------------------------------

  STATCO      DEPTH     TEMP     PH       ALK      COND     COLOR       AL         CA        K         MG         NA        CL     NO3     SO4

 23005360       0       1.6     5.90     32.8      23        50      10.5556     85.75    4.864     33.743    73.515     55     2.5     72
 23005360       0       1.6     5.90     32.8      23        50       9.7778     85.75      .          .          .        55     2.5     72
 23005360       0       1.6     5.90     32.8      23        50      11.6667     85.75      .          .          .        55     2.5     72
 23005360       1        .      5.65     16.5      22        50      12.0000     87.22    5.120     34.566    76.560     54     2.6     73
 23005360       1        .      5.85     28.7      23        50      14.1111     85.75      .          .          .        54     2.6     73
 23005360       1        .      5.85     28.7      23        50      12.2222     85.75      .          .          .        54     2.6     73
 23005360       1        .      5.85     28.7      23        50      16.5556     85.75      .          .          .        54     2.6     73
 23005360       1        .      5.85     28.7      23        50      12.8889     85.75      .          .          .        54     2.6     73

------------------------------------------------- NAME=CLOUD POND   DATE=11784 -------------------------------------------------

  STATCO      DEPTH     TEMP     PH       ALK      COND     COLOR       AL         CA        K         MG         NA        CL     NO3     SO4

 23021335       1       1.5     4.79    -15.0      20        10      28.1111     36.75    9.216     27.159    30.015     27      2     [illegible]
 23021335       1       1.5     4.79    -15.0      20        10      28.6667     36.75      .          .          .        28      2     [illegible]
 23021335      11       2.6     4.92     -8.6      19        10      16.2222     33.32    9.472     25.513    30.885     32      2      93
 23021335      11       2.6     4.92     -8.6      19        10      16.3333     33.32      .          .          .        33      2      72
 23021335      11       2.6     4.92     -8.6      19        10         .        33.32      .          .          .        32      2      76

------------------------------------------------- NAME=CLOUD POND   DATE=60183 -------------------------------------------------

   STATCO      DEPTH     TEMP     PH      ALK     COND     COLOR       AL        CA        K         MG         NA        CL     NO3     SO4

  23021335       0        9      4.75     -13      24        10      39.2222    32.83    9.728     24.690    25.665     20      8       9
  23021335       0        .      4.76     -17      24        10      38.5556      .        .          .          .        20      8       9
  23021335       5        8      4.80     -14      22        10      43.3333    32.34    9.472     23.867    23.925      .      .       .
  23021335       5        .      4.77     -19      22        10      41.2222      .        .          .          .               .

------------------------------------------------- NAME=CLOUD POND   DATE=92983 -------------------------------------------------

  STATCO      DEPTH     TEMP     PH      ALK     COND     COLOR       AL        CA        K         MG         NA        CL     NO3     SO4

 23021335       0        12     4.70     -10      22       10      18.8889    33.81    10.496     23.044    34.365     37     21       9
 23021335       0         .     4.75     -18      22       10      21.1111      .        .          .          .        37     21       9
 23021335       9        12     4.70     -13      21       10      19.7778    31.36     9.728     23.967    29.145     22      6       9
 23021335       9         .     4.75     -19      21       10      19.1111      .        .          .          .        22      6       9

------------------------------------------------- NAME=CRATER POND   DATE=11784 ------------------------------------------------

  STATCO      DEPTH     TEMP     PH       ALK      COND     COLOR       AL         CA        K         MG         NA        CL     NO3     SO4

 23021333       1       0.4     4.75    -15.0      17        10      47.0000     15.68    6.656     19.752    33.930     21      3     [illegible]
 23021333       1       0.4     4.75    -15.0      17        10      47.0000     15.68      .          .          .        20      3     [illegible]
 23021333       1       0.4     4.75    -15.0      17        10         .        15.68      .          .          .        20      3      70
 23021333       6       3.0     4.95     -9.4      17        10      31.8889     15.68    6.656     20.575    23.055     29      4     [illegible]
 23021333       6       3.0     4.95     -9.4      17        10      32.5556     15.68    6.912       .          .        28      4     [illegible]
 23021333       6       3.0     4.95     -9.4      17        10         .        15.68      .          .          .        27      4     [illegible]
 23021333       6       3.0     4.95     -9.4      17        10         .        15.69      .          .          .         .      .     [illegible]
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------------------------------------------------ NAME=CRATER POND   DATE=60193 ------------------------------------------------

   STATCO      DEPTH     TEMP      PH      ALK     COND     COLOR        AL         CA          K          MG          NA        CL     NO3     SO4

  23021333       0        11      4.76     -14      15        0       40.5556     12.79      5.888      15.637      19.140      13      3       6
  23021333       0         .      4.95      -4      14        0       39.3333       .          .           .           .         13      3       6
  23021333       0        12      4.67     -12      16        0       20.4444     12.25      5.376      15.617      22.185      13      3       6
  23021333       0         .      4.85      -9      16        0       21.1111       .          .           .           .         13      3       6
  23021333       3         9      4.72     -17      15        0          .          .          .           .           .                 .
  23021333       3         .      4.75     -13      15        0          .          .          .           .           .          .      .
  23021333       3        12      4.98      -2      16        0       27.5556     11.75      4.608      14.814      19.140       .      .
  23021333       3         .      4.80      -9      17        0       27.1111       .          .           .           .          .      .       .

------------------------------------------------ NAME=DAVIS POND   DATE=62993 ------------------------------------------------

  STATCO      DEPTH     TEMP      PH      ALK     COND     COLOR        AL         CA          K          MG          NA        CL     NO3     SO4

 23011367       0        24      6.45     42       22       50       11.7778     90.16     10.496      32.920      80.475              .
 23011367       0         .      6.40     35       24       60       12.2222       .          .           .           .          .      .       .
 23011367       5        13      5.95     36       23       40        9.7778     92.12      8.448      34.566      65.685       .      .
 23011367       5         .      6.10     38       24       50       10.5556       .          .           .           .          .      .       .

------------------------------------------------ NAME=DAVIS POND   DATE=111583 ------------------------------------------------

  STATCO      DEPTH     TEMP      PH      ALK     COND     COLOR          AL       CA          K          MG          NA        CL     NO3     SO4

 23011367       0        1.1     6.20     38.4     25       60         9.7778    94.57      9.216      36.212      60.030      40     1.6     95
 23011367       0        1.1     6.20     39.4     25       60         9.4444    94.57        .        36.212        .         36     4.0     7
 23011367       0        1.1     6.20     38.4     25       60        11.4444    94.57        .          .           .         36     4.0     7
 23011367       6         .      5.95     42.1     26       50        12.7778    95.06     12.289      35.399      67.425      39     1.2     9
 23011367       6         .      5.95     42.1     26       50        11.7778    95.06     12.544        .           .         47     9.0     7

------------------------------------------------ NAME=EIGHTEEN POND   DATE=60193 ------------------------------------------------

   STATCO      DEPTH     TEMP      PH      ALK     COND     COLOR          AL       CA          K          MG          NA        CL     NO3     SO4

  23021356       0        14      5.75     21       12       20         9.2222    45.57      6.912      25.513      33.495      29      6       6
  23021356       0         .      6.35     34       12       20        10.1111      .          .           .           .         28      6       6
  23021356       4        14      5.65     12       12       20        10.8889    45.57      6.656      24.690      34.800      17      1       6
  23021356       4         .      5.71     18       12       20        11.1111      .          .           .           .         17      1       6

------------------------------------------------ NAME=EIGHTEEN POND   DATE=82593 ------------------------------------------------

  STATCO      DEPTH     TEMP      PH      ALK     COND     COLOR        AL          CA          K          MG          NA        CL     NO3     SO4

 23021356       0         .      6.05     16       16        0       4.11111     44.59     10.240      26.336      59.160      28     6.6     60
 23021356       0         .      6.10     16       15        0       4.44444       .          .           .           .         28     6.6     60
 23021356       5         .      5.95     18       13        0       4.66667     44.10      6.912      26.336      38.715      16     0.9     64
 23021356       5         .      6.10     21       13        0       5.11111       .          .           .           .         16     0.9     64
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-------------------------------------------- NAME=EIGHTEEN POND    DATE=101783 ----------------------------------------------

   STATCO      DEPTH     TEMP      PH      ALK      COND     COLOR        AL         CA        K         MG         NA        CL     NO3     SO4

  23021356       0        11      6.05    19.1       17        20      1.88889     51.94    9.728     29.628     53.505     30     71       5
  23021356       0        11      6.05    19.1       17        20      2.44444     51.94    9.472        .          .       30     71       5
  23021356       0        11      6.05    19.1       17        20      1.77778     51.94      .          .          .       30     71       5
  23021356       0        11      6.05    19.1       17        20      2.33333     51.94      .          .          .       30     71       5

-------------------------------------------- NAME=FOGG POND    DATE=60183 ----------------------------------------------

   STATCO      DEPTH     TEMP      PH      ALK      COND     COLOR        AL         CA        K         MG         NA        CL     NO3     SO4

  23021359       0        13      6.25     25        12        10      7.00000     41.16    9.728     36.212     26.100     15      1       6
  23021359       0         .      6.00     17        12        10      7.44444       .        .          .          .       15      1       6
  23021359       5        13      5.90     18        12         0      3.77778     39.69    9.216     36.212     24.795     14      .       6
  23021359       5         .      5.90     11        12         0      4.11111       .        .          .          .       14      .       6

-------------------------------------------- NAME=FOGG POND    DATE=91583 ----------------------------------------------

   STATCO      DEPTH     TEMP      PH      ALK      COND     COLOR        AL         CA        K         MG         NA        CL     NO3     SO4

  23021359       .         .        .       .         .         .          .          .        .          .          .       15      1       5
  23021359       .         .        .       .         .         .          .          .        .          .          .       15      1       5
  23021359       0         .      6.2      23        16        20      2.44444     38.22    8.96      41.15      26.535     16      1       5
  23021359       0         .      6.0      21        16        20      3.00000       .        .          .          .       16      1       5

-------------------------------------------- NAME=FOGG POND    DATE=111483 ----------------------------------------------

   STATCO      DEPTH     TEMP      PH      ALK      COND     COLOR        AL         CA        K         MG         NA        CL     NO3     SO4

  23021359       0        1.1     6.3     25.1       14         0      0.66667     53.90    9.984     49.380     36.54      24     7.4     68
  23021359       0        1.1     6.3     25.1       14         0      0.66667     53.90      .        49.380        .       24     7.4     69
  23021359       0        1.1     6.3     25.1       14         0      2.22222     53.90      .          .          .       24     7.4     69
  23021359       0        1.1     6.3     25.1       14         0      2.77778     53.90      .          .          .       24     7.4     58
  23021359       0        1.1     6.3     25.1       14         0      3.66667     53.90    9.216     50.203     31.32      24     7.4     69
  23021359       6         .      6.0     17.6       13         0      2.11111     52.92    7.936     48.557     31.32      19     3.6     66
  23021359       6         .      6.0     17.6       13         0      1.66667     52.92      .        48.557        .       19     3.9     67
  23021359       6         .      6.0     17.6       13         0      2.55556     52.92      .          .          .       19      .      69

-------------------------------------------- NAME=GARCOCK POND    DATE=11784 ----------------------------------------------

   STATCO      DEPTH     TEMP      PH      ALK      COND     COLOR      AL           CA        K         MG         NA        CL     NO3     SO4

  23021322       1         3      5.63    25.6       21        30      7.66667     93.59    6.400     28.805     35.670     28      0      76
  23021322       1         3      5.63    25.6       21        30      6.88889     93.59    6.144        .       36.540     30      0      75
  23021322       1         3      5.63    25.6       21        30      7.66667     93.59      .          .          .       29      .      75
  23021322       1         3      5.63    25.6       21        30        .         93.59      .          .          .       30      .      76
  23021322       4         4      5.65    28.3       21        50      7.22222     91.63    6.144     28.805     35.235     26      .      77
  23021322       4         4      5.65    28.3       21        50      7.11111     91.63      .          .          .       27      .      74
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------------------------------------------ NAME=GARCOCK POND   DATE=92383 ------------------------------------------

 STATCO    DEPTH   TEMP    PH    ALK   COND   COLOR      AL        CA      K        MG       NA      CL   NO3   SO4

23021322     0      .     5.78   18     20     50     5.66667    95.55   8.960   31.274   45.24    25     3     9
23021322     0      .     5.80   17     19     40     5.22222      .       .        .        .      25     3     9
23021322     4      .     5.23   19     18     40     9.77778    74.97   9.728   28.805   36.54    20   199     7
23021322     4      .     5.15   15     18     40     9.88889      .       .        .        .      20   189     7

------------------------------------------ NAME=GARCOCK POND   DATE=101383 -----------------------------------------

 STATCO    DEPTH   TEMP    PH    ALK    COND   COLOR      AL        CA      K        MG       NA      CL   NO3   SO4

23021322     0      .     5.35   -3.6    20     30     4.33333    68.11   8.448   24.69    40.02    27   0.6    72
23021322     0      .     5.35   -3.6    20     30     4.11111    68.11   8.448     .        .      27   0.6    72
23021322     0      .     5.35   -3.6    20     30     3.44444    68.11     .       .        .      27   0.6    72

------------------------------------------ NAME=GREEN LAKE   DATE=62193 --------------------------------------------

 STATCO    DEPTH   TEMP    PH    ALK   COND   COLOR      AL        CA      K        MG       NA      CL   NO3   SO4

23009365     0     25     6.30   89     23     10     4.00000    95.06   20.224   27.982   88.730   37     2     5
23009365     0      .     6.65  115     25     10     4.44444      .       .        .        .      37     2     5
23009365     3     25     7.85  118     24     10     2.22222    83.20   20.480   27.159   87.435         .
23009365     3      .     7.69  124     24     10     2.33333      .       .        .        .       .     .

------------------------------------------ NAME=GREEN LAKE   DATE=103193 -------------------------------------------

 STATCO    DEPTH   TEMP    PH    ALK    COND   COLOR      AL        CA      K        MG       NA       CL   NO3   SO4

23009365     0      6     6.85  102.0   24     10     1.33333    91.93   23.808   35.389   101.355   48   1.3    55
23009365     0      6     6.85  102.0   24     10     0.88889    81.83     .        .        .       48   1.3    56
23009365     3      6     6.85   98.3   23     10     0.66667    75.95   23.040   33.743   100.050   44   2.2    53
23009365     3      6     6.85   98.3   23     10     1.11111    75.95     .        .        .       44   2.2    53

------------------------------------------ NAME=HORSESHOE POND   DATE=92383 ----------------------------------------

 STATCO    DEPTH   TEMP    PH    ALK   COND   COLOR      AL        CA      K        MG       NA      CL   NO3   SO4

23021360     0      .      .      .      .     20     5.00000    64.19   7.169   27.159   42.195   21    92     8
23021360     0      .      .      .      .     20     5.11111      .       .        .        .      21    92     9
23021360     2      .     5.65    9     18     20     4.00000    64.19   7.680   27.159   50.025   26     9     9
23021360     2      .     5.53    6     16     20     3.77778      .       .        .        .      26     9     9

------------------------------------------ NAME=HORSESHOE POND   DATE=100583 ---------------------------------------

 STATCO    DEPTH   TEMP    PH    ALK   COND   COLOR      AL        CA      K        MG       NA      CL   NO3   SO4

23021360     0      .     5.7   7.5    16     20     3.66667    61.25   5.632   27.159   36.105   39   2.9    87
23021360     0      .     5.7   7.5    16     20     3.11111    61.25     .        .        .      17   1.3    87
23021360     0      .     5.7   7.5    16     20     4.22222    61.25     .        .        .      17   1.3    89
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-------------------------------------------- NAME=HORSESHOE POND   DATE=101783 ---------------------------------------------

  STATCO     DEPTH    TEMP     PH     ALK    COND    COLOR       AL        CA       K        MG        NA        CL    NO3    SO4

 23021360     0.0     9.9     5.55    1.9     18       40    5.00000     65.17   6.656    27.159    43.935     29     1     79
 23021360     0.0     9.9     5.55    1.9     18       40    6.11111     65.17     .      27.159      .        29     1     78
 23021360     0.0     9.9     5.55    1.9     18       40    4.55556     65.17     .         .        .        29     1     79
 23021360     0.0     9.9     5.55    1.9     18       40    5.11111     65.17     .         .        .        29     1     79
 23021360     1.2     9.9     5.50    3.8     19       40    4.00000     68.60   6.656    28.805    43.590            .
 23021360     1.2      .      5.50    3.6     17       40    3.77778     69.09     .         .        .         .     .      .
 23021360     1.2      .      5.50    3.6     17       40    6.22222     69.09     .         .        .               .
 23021360     1.2      .      5.50    3.6     17       40    6.11111     69.09     .         .        .         .     .

-------------------------------------------- NAME=JOHNSTON POND   DATE=11784 ---------------------------------------------

  STATCO     DEPTH    TEMP     PH     ALK    COND    COLOR       AL        CA       K        MG        NA        CL    NO3    SO4

 23021319      1      1.0     5.78   27.5     16        0      3.5556     51.45   7.680    40.327    53.505     30     1     77
 23021319      1      1.0     5.78   27.5     16        0      4.0000     51.45     .         .        .        29     1     77
 23021319      1      1.0     5.78   27.5     16        0       .         51.45     .         .        .        29     1     76
 23021319     11      1.4     6.25   31.4     16       10     15.8889     54.88   9.984    41.973    47.415     23     2     74
 23021319     11      1.4     6.25   31.4     16       10     13.2222     54.88     .         .      48.720     32     2     74
 23021319     11      1.4     6.25   31.4     16       10     12.7778     54.88     .         .        .        32     2     74
 23021319     11      1.4     6.25   31.4     16       10     13.2222     54.88     .         .        .        32     2     74

-------------------------------------------- NAME=JOHNSTON POND   DATE=83083 ---------------------------------------------

  STATCO     DEPTH    TEMP     PH     ALK    COND    COLOR       AL        CA       K        MG        NA        CL    NO3    SO4

 23021319      0       .      6.45    19      15        0    2.00000     48.02   8.448    36.212    38.28      22    2.5    71
 23021319      0       .      6.25    22      15        0    1.77778       .       .         .        .        22    2.5    71
 23021319     15       .      5.85    31      15       20    6.44444     52.92   8.448    37.035    38.90       .     .
 23021319     15       .      5.60    29      15       20    7.00000       .       .         .        .

-------------------------------------------- NAME=JOHNSTON POND   DATE=110883 ---------------------------------------------

  STATCO     DEPTH    TEMP     PH     ALK    COND    COLOR       AL        CA       K        MG        NA        CL    NO3    SO4

 23021319      0      4.4     6.35   31.2     16        0    0.333333    47.04   7.680    39.504    35.235     19     2      5
 23021319      0      4.4     6.35   31.2     16        0    0.333333    47.04     .         .        .        19     2      5
 23021319      0      4.4     6.35   31.2     15        0    0.444444    47.04     .         .        .        18     2      5
 23021319     12       .      6.25   27.0     13        0    0.000000    49.00   7.168    38.681    32.625      .     .
 23021319     12       .      6.25   27.0     13        0    0.000000    49.00     .         .        .         .     .
 23021319     12       .      6.25   27.0     13        0    0.000000    49.00     .         .        .         .     .

-------------------------------------------- NAME=KNOX POND   DATE=62183 ---------------------------------------------

  STATCO     DEPTH    TEMP     PH     ALK    COND    COLOR         AL     CA        K        MG        NA        CL    NO3    SO4

 23029363      0       25     6.25    29      21       30      9.1111   66.15    13.312    26.336    79.735      .     .
 23029363      0        .     6.16    33      20       40      8.8889     .         .         .        .         .     .      .
 23029363      5       14     5.21    31      21       40     13.2222   71.05    12.544    26.336    76.560     40     1      6
 23029363      5        .     5.65    24      22       40     13.3333     .         .         .        .        40     1      6
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-------------------------------------------------- NAME=KNOX POND   DATE=103183 --------------------------------------------------

  STATCO      DEPTH    TEMP     PH      ALK     COND    COLOR       AL         CA        K          MG         NA         CL    NO3    SO4

 23029363       0       6.6     6.5     55.9     21      40       6.22222    80.85    14.336     31.274     40.175       55    1.9    61
 23029363       0       6.6     6.5     55.9     21      40       7.55556    80.85      .          .          .          55    1.9    61
 23029363       0       6.6     6.5     55.9     21      40       6.44444    80.85      .          .          .          55    1.9    61
 23029363       6       6.0     6.5     56.6     24      40       8.77778    84.29    14.592     32.920     40.915       55    1.0    59
 23029363       6       6.0     6.5     56.6     24      40       7.44444    84.29      .        32.920     40.045       55    1.9    59
 23029363       6       6.0     6.5     56.6     24      40       7.11111    84.29      .          .          .          55    1.0    59
 23029363       6       6.0     6.5     56.6     24      40       7.00000    84.29      .          .          .          55    1.9    59

--------------------------------------------- NAME=LITTLE FISHER POND   DATE=60183 ---------------------------------------------

  STATCO      DEPTH    TEMP     PH      ALK     COND    COLOR       AL         CA        K          MG         NA         CL    NO3    SO4

 23021354       .        .       .       .        .       .          .          .        .          .          .          8      .      .
 23021354       .        .       .       .        .       .          .          .        .          .          .          9      1      8
 23021354       0       14      6.35     62      20      20       29.2222    117.11    6.144     48.557     12.625       8      1      8
 23021354       0        .      5.60     27      20      20       29.6667      .        .          .          .          8      1      8

--------------------------------------------- NAME=LITTLE FISHER POND   DATE=50483 ---------------------------------------------

  STATCO      DEPTH    TEMP     PH      ALK     COND    COLOR       AL         CA        K          MG         NA         CL    NO3    SO4

 23021354       .        .       .       .        .       .          .          .        .          .          .         13      4     11
 23021354       .        .       .       .        .       .          .          .        .          .          .         14      4     11
 23021354       .        .       .       .        .       .          .          .        .          .          .          .      .
 23021354       0        .      6.35     39      22      50       33.6667    115.60    8.192     38.681     22.195       12      4     11
 23021354       0        .      6.30     40      23      50       34.5556      .        .          .          .         12      4     11

--------------------------------------------- NAME=LITTLE FISHER POND   DATE=102483 ---------------------------------------------

  STATCO      DEPTH    TEMP     PH      ALK     COND     COLOR       AL         CA        K          MG         NA         CL    NO3    SO4

 23021354      0.0     10.4     6.40    50.9     32       50      3.66667    125.44    9.216     64.194     53.980       21      1     11
 23021354      0.0     10.4     6.40    50.9     32       50      5.22222    125.44      .       63.371        .          21      1     12
 23021354      0.0     10.4     6.40    50.9     32       50      5.11111    125.44      .          .          .          21      1     11
 23021354      0.5       .      6.55    48.0     28       50      4.77778    118.58    8.192     61.725     49.155        .      .
 23021354      0.5       .      6.55    48.0     28       50      3.77778    118.58    9.449     61.725        .           .      .
 23021354      0.5       .      6.55    44.0     28       50      5.22222    118.58      .          .          .           .      .

---------------------------------------------- NAME=LITTLE HURD POND   DATE=60183 ----------------------------------------------

  STATCO      DEPTH    TEMP     PH      ALK     COND    COLOR       AL         CA        K          MG         NA         CL    NO3    SO4

 23021352       0       12      5.95     26      20      10       18.0000    83.79    11.520     22.221     36.975       17      0      9
 23021352       0        .      5.80     21      20      10       19.5556      .        .          .          .         17      0      9
 23021352       5       12      6.00     26      18      10       15.5556    88.20    11.008     20.575     36.975       17      1      9
 23021352       5        .      5.81     22      18      10       17.3333      .        .          .          .         17      1      9
```

```
------------------------------------------------ NAME=LITTLE HURD POND   DATE=72783 ----------------------------------------------

  STATCO      DEPTH     TEMP      PH      ALK     COND     COLOR          AL         CA         K          MG          NA       CL      NO3     SO4

 23021352       0         .      6.35     24       20        0         6.8889      92.32     11.008     21.398      46.980     22      1.5   [illegible]
 23021352       0         .      6.30     34       20        0         6.5556        .          .          .           .        22     15.6   [illegible]
 23021352      20         .      5.80     40       22       10        13.5556     100.85     11.268     21.867      47.815               .
 23021352      20         .      5.85     40       21       10        13.7778        .          .          .           .         .       .

------------------------------------------------ NAME=LITTLE HURD POND   DATE=102483 ---------------------------------------------

  STATCO      DEPTH     TEMP      PH      ALK     COND     COLOR          AL          CA         K          MG          NA       CL      NO3     SO4

 23021352       0        9.9     6.05    32.1      22       10        3.33333     97.51     13.056     24.690      48.285     24       5       9
 23021352       0        9.9     6.05    32.1      22       10        3.66667     97.51        .          .         49.590     24       5       9
 23021352       0        9.9     6.05    32.1      22       10        4.77778     97.51        .          .           .        24       5       9
 23021352       4        9.4     5.85    39.1      20       10        1.77778     92.12     13.056     23.867      48.720     27      10      10
 23021352       4        9.4     5.85    39.1      20       10        3.33333     92.12        .          .           .        27      10      10
 23021352       4        9.4     5.85    39.1      20       10        2.00000     92.12        .          .           .        27      10      10
 23021352       4        9.4     5.85    39.1      20       10        3.11111     92.12        .          .           .        27      10      10

------------------------------------------------ NAME=LOST POND   DATE=11784 ---------------------------------------------------

  STATCO      DEPTH     TEMP      PH      ALK     COND     COLOR      AL              CA         K          MG          NA       CL      NO3     SO4

 23021351       1        2.3     5.25     2.7      20       30       28.1111         75.46     10.240     29.628      37.410     23       3      71
 23021351       1        2.3     5.25     2.7      20       30       28.8889         75.46        .          .           .        25       8      75
 23021351       1        2.3     5.25     2.7      20       30          .            75.46        .          .           .        23       8      75
 23021351       1        2.3     5.25     2.7      20       30          .            75.46        .          .           .        24       3      75
 23021351       2        2.4     5.35     3.1      24       40       19.3333         75.46      9.728     24.805      36.975     23       3      92
 23021351       2        2.4     5.35     3.1      24       40       25.3333         75.46        .          .         37.410     23       3      92
 23021351       2        2.4     5.35     3.1      24       40       20.1111         75.46        .          .           .        23       3      92

------------------------------------------------ NAME=LOST POND   DATE=60183 ---------------------------------------------------

  STATCO      DEPTH     TEMP      PH      ALK     COND     COLOR          AL          CA         K          MG          NA       CL      NO3     SO4

 23021351       0        13      5.35      8       18       40        18.6667      60.27     11.008     20.575      28.710     17       1       7
 23021351       0         .      5.08      3       18       40        18.8889        .          .          .           .        17       1       7
 23021351       2        13      5.35      5       18       40        19.1111      62.21     10.752     20.575      29.185     16       0       7
 23021351       2         .      5.35      2       15       40        18.7778        .          .          .           .        16       0       7

------------------------------------------------ NAME=LOST POND   DATE=72083 ---------------------------------------------------

  STATCO      DEPTH     TEMP      PH      ALK     COND     COLOR          AL          CA         K          MG          NA       CL      NO3     SO4

 23021351       0         .      5.80      6       20       20        8.66667      60.76     11.776     21.867      40.020     23     17.7      8
 23021351       0         .      5.65      9       17       30        8.88889        .          .          .           .        23     17.7      8
 23021351       1         .      5.75     10       19       30        8.66667      60.27     10.316     21.088      40.805             .
 23021351       1         .      5.65      7       17       30        8.88889        .          .          .           .         .       .
```

```
--------------------------------------------- NAME=PORTER POND   DATE=62383 ---------------------------------------------

  STATCO      DEPTH     TEMP      PH      ALK     COND     COLOR       AL          CA         K         MG         NA       CL     NO3     SO4

 23009361       1        25      6.25     39       18        30      6.33333     79.38     13.056     25.513     73.17      .       .
 23009361       1         .      6.15     41       18        30      6.88889       .          .          .          .        .       .
 23009361       3        25      6.58     46       20        30      6.88889     76.93     12.544     26.336     74.82      .       .
 23009361       3         .      6.35     43       19        30      7.33333       .          .          .          .        .       .       .

--------------------------------------------- NAME=PORTER POND   DATE=103183 --------------------------------------------

  STATCO      DEPTH     TEMP      PH      ALK     COND     COLOR       AL          CA         K         MG         NA       CL     NO3     SO4

 23009361       0         6      6.45     49.4     24        20      2.88889     73.99     14.592     30.451     82.65     39     1.1      73
 23009361       0         .      6.45     45.5     23        20      5.11111     74.97        .          .          .       39     1.1      73
 23009361       0         .      6.45     45.5     23        20      3.33333     74.97        .          .          .       39     1.1      73
 23009361       3         6      6.50     48.0     20        20      1.77778     68.11     13.824     27.982     76.56     36     1.0      67
 23009361       3         6      6.50     48.0     20        20      2.22222     68.11     13.824        .          .       36     1.0      67
 23009361       3         6      6.50     48.0     20        20      1.66667     68.11        .          .          .       36     1.0      67

--------------------------------------------- NAME=TROUT POND   DATE=90883 ----------------------------------------------

  STATCO      DEPTH     TEMP      PH      ALK     COND     COLOR       AL          CA         K         MG         NA       CL     NO3     SO4

 23029364       .         .        .       .        .         .         .            .         .          .          .       23      9       9
 23029364       .         .        .       .        .         .         .            .         .          .          .       23      9       9
 23029364       0         .      6.80     81       28        20      4.33333    101.43      7.68      39.504     69.165    23      8       9
 23029364       0         .      6.75     84       29        20      5.22222       .          .          .          .       23      8       9

--------------------------------------------- NAME=TWIN POND   DATE=11784 -----------------------------------------------

  STATCO      DEPTH     TEMP      PH      ALK     COND     COLOR     AL            CA         K         MG         NA        CL     NO3     SO4

 23021320       1        0.3     6.35     70.9     22         0      2.44444     107.31     9.472     27.159     43.935     29      4      97
 23021320       1        0.3     6.35     70.9     22         0      2.00000     107.31       .          .          .        29      4      92
 23021320       1        0.3     6.35     70.9     22         0      2.11111     107.31       .          .          .        30      4      93
 23021320       1        0.3     6.35     70.9     22         0      2.66667     107.31       .          .          .        29      4      93
 23021320      18        2.9     6.52     63.5     22        10      2.33333     105.84    11.520     27.159     43.935     26      4      92
 23021320      18        2.9     6.52     63.5     22        10      2.22222     105.84       .          .          .        21      4      91
 23021320      18        2.9     6.52     63.5     22        10      1.77778     105.84       .          .          .        21      4      92
 23021320      18        2.9     6.52     63.5     22        10       .          105.84       .          .          .        22      4      92
 23021320      18        2.9     6.52     63.5     22        10       .          105.84       .          .          .        23      4      91

--------------------------------------------- NAME=TWIN POND   DATE=90283 -----------------------------------------------

  STATCO      DEPTH     TEMP      PH      ALK     COND     COLOR       AL          CA         K         MG         NA       CL     NO3     SO4

 23021320       0         .      6.60     53       21        10      1.77778     92.61     11.52      28.805     47.415    17     1.4      93
 23021320       0         .      6.70     53       21        10      1.77778       .          .          .          .       17     1.4      93
 23021320      15         .      5.85     53       24        10      4.33333     94.08     10.24      28.805     43.065     .      .
 23021320      15         .      5.95     52       23        10      4.33333       .          .          .          .              .
```

```
------------------------------------------------ NAME=UNNAMED POND   DATE=60183 ------------------------------------------------

    STATCO     DEPTH     TEMP      PH      ALK     COND     COLOR        AL         CA          K          MG          NA      CL    NO3    SO4

   23021355      .         .        .        .       .        .          .          .           .          .           .      11     1      4
   23021355      .         .        .        .       .        .          .          .           .          .           .       2     .      3
   23021355      0        15      5.25       8      12       50       11.4444     61.74      10.496      22.221      22.62    12     1      3
   23021355      0         .      5.15      12      14       40       11.7778       .           .          .           .      12     1      3

------------------------------------------------ NAME=UNNAMED POND   DATE=80983 ------------------------------------------------

    STATCO     DEPTH     TEMP      PH      ALK     COND     COLOR        AL         CA          K          MG          NA      CL    NO3    SO4

   23021355      .         .        .        .       .        .          .          .           .          .           .       .     .
   23021355      .         .        .        .       .        .          .          .           .          .           .       .     .      .
   23021355      0         .      6.05      25      17       80       9.88889     78.89      19.712      27.982      74.92     .     .
   23021355      0         .      6.10      22      18       70       9.44444       .           .          .           .       .     .      .

----------------------------------------------- NAME=UNNAMED POND   DATE=101883 ------------------------------------------------

   STATCO     DEPTH     TEMP      PH      ALK      COND     COLOR        AL         CA        K          MG          NA         CL    NO3    SO4

  23021355     0.0       9.4     6.05     24.2      19       70       5.55556     66.64    8.704      27.159      30.015      13    5.2    47
  23021355     0.0       9.4     6.05     24.2      19       70       4.33333     66.64     .            .           .         13    5.2    47
  23021355     0.0       9.4     6.05     24.2      19       70       3.55556     66.64     .            .           .         13    5.2    47
  23021355     1.2       9.4     6.05     30.2      19       60       4.33333     65.17    8.704      26.336      29.580       .     .      .
  23021355     1.2       9.4     6.05     30.2      19       60       3.88889     65.17    8.704        .           .          .     .
  23021355     1.2       9.4     6.05     30.2      19       60       4.33333     65.17     .            .           .          .     .      .

----------------------------------------------- NAME=UPPER PUG POND   DATE=62483 ------------------------------------------------

   STATCO     DEPTH     TEMP      PH      ALK     COND     COLOR        AL        CA         K          MG          NA          CL    NO3    SO4

  23019362      1        25      6.75     78       25       20       5.88889    120.54    12.544      39.504      76.125       .     .
  23019362      1         .      6.59     84       24       20       6.33333      .          .           .           .          .     .
  23019362      3        24      6.45     80       24       20       7.77778    116.62    11.008      36.212      66.555      31     0      7
  23019362      3         .      6.25     83       23       20       7.77778      .          .           .           .         31     0      7

----------------------------------------------- NAME=UPPER PUG POND   DATE=111883 -----------------------------------------------

   STATCO     DEPTH     TEMP      PH      ALK     COND     COLOR        AL         CA        K          MG          NA          CL    NO3    SO4

  23019362      0         .      6.95    102      32       20       1.33333    123.97    11.008      43.619      65.250      30     .      3
  23019362      0         .      6.95    102      32       20       1.66667    123.97      .           .         66.120      30     .      2
  23019362      3         .      7.05    101      26       10       0.00000    125.44    11.008      43.619      66.555      27     1      7
  23019362      3         .      6.95    109      25       10       1.00000    126.42      .           .           .         27     1      7
```

Appendix B. Fish collection data from the study lakes.

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-------------- NAME=BEAR POND   DATE=82082   SPECIES=BROOK TROUT ---------------

 STATCO  ID GEAR TL   WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23021366  1  GN  215  99  M   2  30  14  24   .   .   .   .   .   .   .   .
23021366  2  GN  226 113  F   2  31  13  23   .   .   .   .   .   .   .   .
23021366  3  GN  195  71  F   2  35  13  26   .   .   .   .   .   .   .   .
23021366  4  GN  205  81  M   2  38  12  27   .   .   .   .   .   .   .   .
23021366  5  GN  178  51  F   2  26  11  19   .   .   .   .   .   .   .   .
23021366  6  GN  235 116  M   2  37  12  29   .   .   .   .   .   .   .   .
23021366  7  GN  161  44  F   2  21   8  16   .   .   .   .   .   .   .   .
23021366  8  GN  203  79  F   2  22   8  15   .   .   .   .   .   .   .   .
23021366  9  GN  237 124  F   2  32   9  20   .   .   .   .   .   .   .   .
23021366 10  GN  176  52  F   2  23   8  16   .   .   .   .   .   .   .   .
```

```
------------- NAME=BEAR POND   DATE=82082   SPECIES=COMMON SHINER --------------

  STATCO  ID GEAR  TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021366 1    GN    .  .        .    .   .   .   .   .   .   .   .   .   .   .
 23021366 2    GN    .  .        .    .   .   .   .   .   .   .   .   .   .   .
 23021366 3    MT   110 12       2   194 127 177  .   .   .   .   .   .   .   .
 23021366 4    MT   125 20       2   200 145 180  .   .   .   .   .   .   .   .
 23021366 5    MT   120 22   M   2   213 105 177  .   .   .   .   .   .   .   .
 23021366 6    MT   120 15       2   179 107 145  .   .   .   .   .   .   .   .
 23021366 7    MT   121 13       .    .   .   .   .   .   .   .   .   .   .   .
 23021366 8    MT   126 20       .    .   .   .   .   .   .   .   .   .   .   .
```

```
--------------- NAME=BEAR POND   DATE=82082   SPECIES=CREEK CHUB ---------------

  STATCO  ID GEAR TL  WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021366  1  GN  185 62      2  246 135 204  .   .   .   .   .   .   .   .
 23021366  2  GN  180 53      2  210 115 172  .   .   .   .   .   .   .   .
 23021366  3  GN  179 54  M   .    .   .   .  .   .   .   .   .   .   .   .
 23021366  4  GN  176 51      .    .   .   .  .   .   .   .   .   .   .   .
 23021366  5  GN  175 47      .    .   .   .  .   .   .   .   .   .   .   .
 23021366  6  GN  180 52      .    .   .   .  .   .   .   .   .   .   .   .
 23021366  7  GN  159 44      .    .   .   .  .   .   .   .   .   .   .   .
 23021366  8  GN  165 44      .    .   .   .  .   .   .   .   .   .   .   .
 23021366  9  GN  175 50      .    .   .   .  .   .   .   .   .   .   .   .
 23021366 10  GN  162 39      .    .   .   .  .   .   .   .   .   .   .   .
 23021366 11  GN  170 41      .    .   .   .  .   .   .   .   .   .   .   .
 23021366 12  GN  169 44      .    .   .   .  .   .   .   .   .   .   .   .
 23021366 13  GN  112 14      .    .   .   .  .   .   .   .   .   .   .   .
 23021366 14  GN  176 51      .    .   .   .  .   .   .   .   .   .   .   .
 23021366 15  GN  171 45      .    .   .   .  .   .   .   .   .   .   .   .
 23021366 16  GN  164 40      .    .   .   .  .   .   .   .   .   .   .   .
 23021366 17  GN  109 14      .    .   .   .  .   .   .   .   .   .   .   .
 23021366 18  GN  110 13      .    .   .   .  .   .   .   .   .   .   .   .
 23021366 19  GN  165 40      .    .   .   .  .   .   .   .   .   .   .   .
 23021366 20  GN  175 47      .    .   .   .  .   .   .   .   .   .   .   .
 23021366 21  GN  110 14      .    .   .   .  .   .   .   .   .   .   .   .
 23021366 22  GN  115 15      .    .   .   .  .   .   .   .   .   .   .   .
 23021366 23  GN  115 15      .    .   .   .  .   .   .   .   .   .   .   .
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---------------- NAME=BEAR POND   DATE=82082   SPECIES=CREEK CHUB ---------------

  STATCO ID GEAR  TL  WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23021366 24   GN 115  16       .   .   .   .   .   .   .   .   .   .   .    .
23021366 25   GH 116  15       .   .   .   .   .   .   .   .   .   .   .    .
23021366 26   GN 128  19       .   .   .   .   .   .   .   .   .   .   .    .
23021366 27   GN 172  48       .   .   .   .   .   .   .   .   .   .   .    .
23021366 28   GN 145  26       .   .   .   .   .   .   .   .   .   .   .    .
23021366 29   GN 122  18       .   .   .   .   .   .   .   .   .   .   .    .
23021366 30   GN 115  14       .   .   .   .   .   .   .   .   .   .   .    .
23021366 31   GN 119  16       .   .   .   .   .   .   .   .   .   .   .    .
23021366 32   GN 120  15       .   .   .   .   .   .   .   .   .   .   .    .
23021366 33   GN 130  19       .   .   .   .   .   .   .   .   .   .   .    .
23021366 34   GN 126  19       .   .   .   .   .   .   .   .   .   .   .    .
23021366 35   MT 119  18       1 158 103   .   .   .   .   .   .   .   .    .
23021366 36   MT 125  18       1 137  84   .   .   .   .   .   .   .   .    .
23021366 37   MT 133  20       2 190  72 124   .   .   .   .   .   .   .    .
23021366 38   MT 140  27       1 152 101   .   .   .   .   .   .   .   .    .
23021366 39   MT 116  14       1 151  96   .   .   .   .   .   .   .   .    .
23021366 40   MT 114  13       1 123  93   .   .   .   .   .   .   .   .    .
23021366 41   MT 100  10       1 145  78   .   .   .   .   .   .   .   .    .
23021366 42   MT 100  11       1 131  81   .   .   .   .   .   .   .   .    .
23021366 43   MT 118  15       1 152  77   .   .   .   .   .   .   .   .    .
23021366 44   MT 116  11       1 123  82   .   .   .   .   .   .   .   .    .
23021366 45   MT  87   6       .   .   .   .   .   .   .   .   .   .   .    .
23021366 46   MT 107  11       .   .   .   .   .   .   .   .   .   .   .    .
23021366 47   MT 116  14       .   .   .   .   .   .   .   .   .   .   .    .
23021366 48   MT  85   5       .   .   .   .   .   .   .   .   .   .   .    .
23021366 49   MT 122  17       .   .   .   .   .   .   .   .   .   .   .    .
23021366 50   MT 100  10       .   .   .   .   .   .   .   .   .   .   .    .
23021366 51   MT 105  12       .   .   .   .   .   .   .   .   .   .   .    .
23021366 52   MT 104  10       .   .   .   .   .   .   .   .   .   .   .    .
23021366 53   MT 103  11       .   .   .   .   .   .   .   .   .   .   .    .
23021366 54   MT 112  14       .   .   .   .   .   .   .   .   .   .   .    .
23021366 55   MT 115  13       .   .   .   .   .   .   .   .   .   .   .    .
23021366 56   MT  82   5       .   .   .   .   .   .   .   .   .   .   .    .
23021366 57   MT  95   8       .   .   .   .   .   .   .   .   .   .   .    .
23021366 58   MT  82   5       .   .   .   .   .   .   .   .   .   .   .    .
23021366 59   MT  75   3       .   .   .   .   .   .   .   .   .   .   .    .
23021366 60   MT  82   4       .   .   .   .   .   .   .   .   .   .   .    .
23021366 61   MT  85   5       .   .   .   .   .   .   .   .   .   .   .    .
23021366 62   MT  92   6       .   .   .   .   .   .   .   .   .   .   .    .
23021366 63   MT  95   8       .   .   .   .   .   .   .   .   .   .   .    .
23021366 64   MT 110  12       .   .   .   .   .   .   .   .   .   .   .    .
23021366 65   MT 120  17       .   .   .   .   .   .   .   .   .   .   .    .
23021366 66   MT  98   9       .   .   .   .   .   .   .   .   .   .   .    .
23021366 67   MT  72   4       .   .   .   .   .   .   .   .   .   .   .    .
23021366 68   MT  85   6       .   .   .   .   .   .   .   .   .   .   .    .
23021366 69   MT 100  10       .   .   .   .   .   .   .   .   .   .   .    .
23021366 70   MT  74   3       .   .   .   .   .   .   .   .   .   .   .    .
23021366 71   MT  77   4       .   .   .   .   .   .   .   .   .   .   .    .
23021366 72   MT  99   8       .   .   .   .   .   .   .   .   .   .   .    .
23021366 73   MT  82   4       .   .   .   .   .   .   .   .   .   .   .    .
23021366 74   MT  84   5       .   .   .   .   .   .   .   .   .   .   .    .
23021366 75   MT  85   6       .   .   .   .   .   .   .   .   .   .   .    .
23021366 76   MT  85   8       .   .   .   .   .   .   .   .   .   .   .    .
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--------------- NAME=BEAR POND   DATE=82082   SPECIES=CREEK CHUB ---------------

  STATCO    ID GEAR   TL  WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021366   77  MT    90   6       .    .    .  .   .   .   .   .   .   .   .   .
 23021366   78  MT    92   8       .    .    .  .   .   .   .   .   .   .   .   .
 23021366   79  MT    90   7       .    .    .  .   .   .   .   .   .   .   .   .
 23021366   80  MT    88   5       .    .    .  .   .   .   .   .   .   .   .   .
 23021366   81  MT    70   3       .    .    .  .   .   .   .   .   .   .   .   .
 23021366   82  MT    82   6       .    .    .  .   .   .   .   .   .   .   .   .
 23021366   83  MT    76   4       .    .    .  .   .   .   .   .   .   .   .   .
 23021366   84  MT    95   8       .    .    .  .   .   .   .   .   .   .   .   .
 23021366   85  MT    85   6       .    .    .  .   .   .   .   .   .   .   .   .
 23021366   86  MT    85   5       .    .    .  .   .   .   .   .   .   .   .   .
 23021366   87  MT    98   8       .    .    .  .   .   .   .   .   .   .   .   .
 23021366   88  MT    80   5       .    .    .  .   .   .   .   .   .   .   .   .
 23021366   89  MT    86   6       .    .    .  .   .   .   .   .   .   .   .   .
 23021366   90  MT    89   7       .    .    .  .   .   .   .   .   .   .   .   .
 23021366   91  MT    86   6       .    .    .  .   .   .   .   .   .   .   .   .
 23021366   92  MT    86   5       .    .    .  .   .   .   .   .   .   .   .   .
 23021366   93  MT    90   7       .    .    .  .   .   .   .   .   .   .   .   .
 23021366   94  MT    92   7       .    .    .  .   .   .   .   .   .   .   .   .
 23021366   95  MT    73   4       .    .    .  .   .   .   .   .   .   .   .   .
 23021366   96  MT    76   4       .    .    .  .   .   .   .   .   .   .   .   .
 23021366   97  MT    92   7       .    .    .  .   .   .   .   .   .   .   .   .
 23021366   98  MT   100  10       .    .    .  .   .   .   .   .   .   .   .   .
 23021366   99  MT    86   6       .    .    .  .   .   .   .   .   .   .   .   .
 23021366  100  MT    81   5       .    .    .  .   .   .   .   .   .   .   .   .
 23021366  101  MT    90   7       .    .    .  .   .   .   .   .   .   .   .   .
 23021366  102  MT    76   4       .    .    .  .   .   .   .   .   .   .   .   .
 23021366  103  MT    89   6       .    .    .  .   .   .   .   .   .   .   .   .
 23021366  104  MT    75   3       .    .    .  .   .   .   .   .   .   .   .   .
 23021366  105  MT    86   6       .    .    .  .   .   .   .   .   .   .   .   .
 23021366  106  MT    95   8       .    .    .  .   .   .   .   .   .   .   .   .
 23021366  107  MT    75   3       .    .    .  .   .   .   .   .   .   .   .   .
 23021366  108  MT    75   4       .    .    .  .   .   .   .   .   .   .   .   .
 23021366  109  MT    71   3       .    .    .  .   .   .   .   .   .   .   .   .
 23021366  110  MT    66   2       .    .    .  .   .   .   .   .   .   .   .   .
 23021366  111  MT    85   5       .    .    .  .   .   .   .   .   .   .   .   .
 23021366  112  MT    76   4       .    .    .  .   .   .   .   .   .   .   .   .
 23021366  113  MT    81   4       .    .    .  .   .   .   .   .   .   .   .   .
 23021366  114  MT    70   4       .    .    .  .   .   .   .   .   .   .   .   .
 23021366  115  MT   128  17       .    .    .  .   .   .   .   .   .   .   .   .
 23021366  116  MT   115  11       1  160   90  .   .   .   .   .   .   .   .   .
 23021366  117  MT   119  15       1  157  108  .   .   .   .   .   .   .   .   .
 23021366  118  MT   122  14       1  158   97  .   .   .   .   .   .   .   .   .
 23021366  119  MT   120  16   M   1  195  118  .   .   .   .   .   .   .   .   .
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------------- NAME=BEAR POND   DATE=82082   SPECIES=GOLDEN SHINER -------------

  STATCO   ID GEAR  TL   WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021366   1   MT   109  12         .   .   .   .   .   .   .   .   .   .   .   .
 23021366   2   MT    95   8         .   .   .   .   .   .   .   .   .   .   .   .
 23021366   3   MT    90   8         .   .   .   .   .   .   .   .   .   .   .   .
 23021366   4   MT    88   7         .   .   .   .   .   .   .   .   .   .   .   .
 23021366   5   MT   112  13         .   .   .   .   .   .   .   .   .   .   .   .
 23021366   6   MT    98   8         .   .   .   .   .   .   .   .   .   .   .   .
 23021366   7   MT    84   5         .   .   .   .   .   .   .   .   .   .   .   .
 23021366   8   MT   115  15         .   .   .   .   .   .   .   .   .   .   .   .
 23021366   9   MT    82   5         .   .   .   .   .   .   .   .   .   .   .   .
 23021366  10   MT    84   5         .   .   .   .   .   .   .   .   .   .   .   .
 23021366  11   MT    92   6         .   .   .   .   .   .   .   .   .   .   .   .
 23021366  12   MT    78   3         1 109  90   .   .   .   .   .   .   .   .   .
 23021366  13   MT    89   5         1 112  77   .   .   .   .   .   .   .   .   .
 23021366  14   MT    79   4         1 115  75   .   .   .   .   .   .   .   .   .
 23021366  15   MT    72   3         1  99  78   .   .   .   .   .   .   .   .   .
 23021366  16   MT    70   3         1  91  75   .   .   .   .   .   .   .   .   .
 23021366  17   MT    70   3         1  71  56   .   .   .   .   .   .   .   .   .
 23021366  18   MT    79   4         1  95  87   .   .   .   .   .   .   .   .   .
 23021366  19   MT    69   2         1  81  53   .   .   .   .   .   .   .   .   .
 23021366  20   MT    82   5         1 104  88   .   .   .   .   .   .   .   .   .
 23021366  21   MT    62   2         1  79  61   .   .   .   .   .   .   .   .   .
 23021366  22   MT    90   6         2 124  58 112   .   .   .   .   .   .   .   .
 23021366  23   MT    69   2         1  88  73   .   .   .   .   .   .   .   .   .
 23021366  24   MT    75   3         1  87  71   .   .   .   .   .   .   .   .   .
 23021366  25   MT    60   1         1  94  70   .   .   .   .   .   .   .   .   .
 23021366  26   MT    70   3         1 107  81   .   .   .   .   .   .   .   .   .
 23021366  27   MT    75   4         1  93  78   .   .   .   .   .   .   .   .   .
 23021366  28   MT    61   2         1  81  67   .   .   .   .   .   .   .   .   .
 23021366  29   MT    60   1         1  79  60   .   .   .   .   .   .   .   .   .
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----------- NAME=BIG FISHER POND   DATE=80483   SPECIES=BROOK TROUT ------------

  STATCO   ID GEAR  TL   WT  SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021353   1   GN  212 110   M   2   29  16  24   .   .   .   .   .   .   .   .
 23021353   2   GN  284 277   F   3   38  10  19   .   .   .   .   .   .   .   .
 23021353   3   GN  298 296   F   3   44  13  24   .   .   .   .   .   .   .   .
 23021353   4   GN  257 164   M   3   40  11  21   .   .   .   .   .   .   .   .
 23021353   5   GN  218  91   F   2   40  17  29   .   .   .   .   .   .   .   .
 23021353   6   GN  280 238   F   3   33  13  24   .   .   .   .   .   .   .   .
 23021353   7   GN  214 111       2   32  16  28   .   .   .   .   .   .   .   .
 23021353   8   GN  225 127   F   2   31  10  21   .   .   .   .   .   .   .   .
 23021353   9   GN  182  62   M   2   40  18  32   .   .   .   .   .   .   .   .
 23021353  10   GN  187  71   F   2   38  16  29   .   .   .   .   .   .   .   .
 23021353  11   GN  185  63   F   2   36  15  26   .   .   .   .   .   .   .   .
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---------- NAME=BIG FISHER POND   DATE=80483   SPECIES=BROWN BULLHEAD ----------

  STATCO   ID GEAR  TL   WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021353  1    MT  130  34          .   .   .   .   .   .   .   .   .   .   .   .
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---------- NAME=BIG FISHER POND   DATE=80483   SPECIES=BROWN BULLHEAD ----------

  STATCO   ID GEAR  TL  WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

  23021353  2  GN   130  34       .   .   .   .   .   .   .   .   .   .   .    .

---------- NAME=BIG FISHER POND   DATE=80483   SPECIES=COMMON SHINER ----------

  STATCO   ID GEAR  TL  WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

  23021353  1  GN   127   .       .   .   .   .   .   .   .   .   .   .   .    .
  23021353  2  GN   114  16       .   .   .   .   .   .   .   .   .   .   .    .
  23021353  3  GN   104   .       .   .   .   .   .   .   .   .   .   .   .    .
  23021353  4  GN   103   .       .   .   .   .   .   .   .   .   .   .   .    .
  23021353  5  GN   103  13       .   .   .   .   .   .   .   .   .   .   .    .
  23021353  6  GN   107   .       .   .   .   .   .   .   .   .   .   .   .    .
  23021353  7  GN   108  14       .   .   .   .   .   .   .   .   .   .   .    .
  23021353  8  GN   118  17       .   .   .   .   .   .   .   .   .   .   .    .
  23021353  9  GN   112   .       .   .   .   .   .   .   .   .   .   .   .    .
  23021353 10  GN   107  13       .   .   .   .   .   .   .   .   .   .   .    .

------------ NAME=BIG FISHER POND   DATE=80483   SPECIES=CREEK CHUB ------------

  STATCO   ID GEAR  TL  WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

  23021353  1  GN   162  52       2 190  60 115   .   .   .   .   .   .   .    .
  23021353  2  GN   166   .       2 215  70 142   .   .   .   .   .   .   .    .
  23021353  3  GN   164   .       2 220  76 157   .   .   .   .   .   .   .    .
  23021353  4  GN   164  51       2 155  50 111   .   .   .   .   .   .   .    .
  23021353  5  GN   164  44       2 190  63 122   .   .   .   .   .   .   .    .
  23021353  6  GN   166  48       2 195  69 138   .   .   .   .   .   .   .    .
  23021353  7  GN   163  39       2 201  80 146   .   .   .   .   .   .   .    .
  23021353  8  GN   182  57       3 210  65 103   .   .   .   .   .   .   .    .
  23021353  9  GN   164  49       2 222  95 155   .   .   .   .   .   .   .    .
  23021353 10  MT   107  12       1 125  74   .   .   .   .   .   .   .   .    .
  23021353 11  MT   132  24       1 125  68   .   .   .   .   .   .   .   .    .
  23021353 12  GN   109   .       .   .   .   .   .   .   .   .   .   .   .    .
  23021353 13  GN   117   .       .   .   .   .   .   .   .   .   .   .   .    .
  23021353 14  GN   105   .       .   .   .   .   .   .   .   .   .   .   .    .
  23021353 15  GN   107   .       .   .   .   .   .   .   .   .   .   .   .    .
  23021353 16  GN   111   .       .   .   .   .   .   .   .   .   .   .   .    .
  23021353 17  GN   111  14       .   .   .   .   .   .   .   .   .   .   .    .
  23021353 18  GN   110  15       .   .   .   .   .   .   .   .   .   .   .    .
  23021353 19  GN   118   .       .   .   .   .   .   .   .   .   .   .   .    .
  23021353 20  GN   110   .       .   .   .   .   .   .   .   .   .   .   .    .
  23021353 21  GN   117   .       .   .   .   .   .   .   .   .   .   .   .    .
  23021353 22  GN   124  21       .   .   .   .   .   .   .   .   .   .   .    .
  23021353 23  GN   115  15       .   .   .   .   .   .   .   .   .   .   .    .
  23021353 24  GN   110  15       .   .   .   .   .   .   .   .   .   .   .    .
  23021353 25  GN   113  16       .   .   .   .   .   .   .   .   .   .   .    .
  23021353 26  GN   104   .       .   .   .   .   .   .   .   .   .   .   .    .
  23021353 27  GN   118  20       .   .   .   .   .   .   .   .   .   .   .    .
  23021353 28  GN   117  16       .   .   .   .   .   .   .   .   .   .   .    .
  23021353 29  GN   110   .       .   .   .   .   .   .   .   .   .   .   .    .
  23021353 30  GN   113  15       .   .   .   .   .   .   .   .   .   .   .    .
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------------ NAME=BIG FISHER POND   DATE=80483   SPECIES=CREEK CHUB ------------

  STATCO  ID GEAR TL   WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021353 31  GN  107  .       .   .   .   .   .   .   .   .   .   .   .    .
 23021353 32  GN  115  .       .   .   .   .   .   .   .   .   .   .   .    .
 23021353 33  GN  108  .       .   .   .   .   .   .   .   .   .   .   .    .
 23021353 34  GN  117  .       .   .   .   .   .   .   .   .   .   .   .    .
 23021353 35  GN  119  .       .   .   .   .   .   .   .   .   .   .   .    .
 23021353 36  GN  108  .       .   .   .   .   .   .   .   .   .   .   .    .
 23021353 37  GN  111 15       .   .   .   .   .   .   .   .   .   .   .    .
 23021353 38  GN  110  .       .   .   .   .   .   .   .   .   .   .   .    .
 23021353 39  GN  102 13       .   .   .   .   .   .   .   .   .   .   .    .
 23021353 40  GN  103  .       .   .   .   .   .   .   .   .   .   .   .    .
 23021353 41  GN  110 15       .   .   .   .   .   .   .   .   .   .   .    .
 23021353 42  GN  102  .       .   .   .   .   .   .   .   .   .   .   .    .
 23021353 43  GN  113 16       .   .   .   .   .   .   .   .   .   .   .    .
 23021353 44  GN  109 13       .   .   .   .   .   .   .   .   .   .   .    .
 23021353 45  GN  107 13       .   .   .   .   .   .   .   .   .   .   .    .
 23021353 46  GN  106 13       .   .   .   .   .   .   .   .   .   .   .    .
 23021353 47  GN  119 18       .   .   .   .   .   .   .   .   .   .   .    .
 23021353 48  GN  114  .       .   .   .   .   .   .   .   .   .   .   .    .
 23021353 49  GN  117 17       .   .   .   .   .   .   .   .   .   .   .    .
 23021353 50  GN  120 18       .   .   .   .   .   .   .   .   .   .   .    .
 23021353 51  GN  107  .       .   .   .   .   .   .   .   .   .   .   .    .
 23021353 52  GN  110  .       .   .   .   .   .   .   .   .   .   .   .    .
 23021353 53  GN  114 16       .   .   .   .   .   .   .   .   .   .   .    .
 23021353 54  GN  110 15       .   .   .   .   .   .   .   .   .   .   .    .
 23021353 55  GN  107  .       .   .   .   .   .   .   .   .   .   .   .    .
 23021353 56  GN  113 16       .   .   .   .   .   .   .   .   .   .   .    .
 23021353 57  GN  113 16       .   .   .   .   .   .   .   .   .   .   .    .
 23021353 58  GN  105 12       .   .   .   .   .   .   .   .   .   .   .    .
 23021353 59  GN  112 15       .   .   .   .   .   .   .   .   .   .   .    .
 23021353 60  GN  102  .       .   .   .   .   .   .   .   .   .   .   .    .
 23021353 61  GN  112  .       .   .   .   .   .   .   .   .   .   .   .    .
 23021353 62  GN  112 15       .   .   .   .   .   .   .   .   .   .   .    .


---------- NAME=BIG FISHER POND   DATE=80483   SPECIES=CYPRINIDAE SP. ----------

  STATCO  ID GEAR TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021353 1   MT  97 10      2  70  22  47   .   .   .   .   .   .   .   .
 23021353 2   MT  72  4      1  30  20   .   .   .   .   .   .   .   .   .
 23021353 3   MT  79  5      1  24  19   .   .   .   .   .   .   .   .   .
 23021353 4   MT  93  8      .   .   .   .   .   .   .   .   .   .   .   .
 23021353 5   MT  72  4      .   .   .   .   .   .   .   .   .   .   .   .
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------------- NAME=BIG FISHER POND   DATE=80483   SPECIES=FALLFISH -------------

 STATCO  ID GEAR TL  WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23021353 1   GN  110 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 2   GN  100 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 3   GN  100 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 4   GN  120 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 5   GN  115 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 6   GN  110 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 7   GN  107 .       .   .   .   .   .   .   .   .   .   .   .   .

---------- NAME=BIG FISHER POND   DATE=80483   SPECIES=FINESCALE DACE ----------

 STATCO  ID GEAR TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23021353  1  MT  59 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353  2  MT  53 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353  3  MT  58 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353  4  MT  59 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353  5  MT  60 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353  6  MT  70 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353  7  MT  59 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353  8  MT  55 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353  9  MT  68 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 10  MT  61 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 11  MT  67 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 12  MT  50 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 13  MT  71 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 14  MT  54 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 15  MT  70 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 16  MT  55 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 17  MT  60 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 18  MT  51 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 19  MT  50 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 20  MT  75 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 21  MT  65 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 22  MT  65 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 23  MT  60 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 24  MT  60 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 25  MT  70 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 26  MT  61 .       .   .   .   .   .   .   .   .   .   .   .   .
23021153 27  MT  60 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 28  MT  65 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 29  MT  71 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 30  MT  90 .       .   .   .   .   .   .   .   .   .   .   .   .
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---------- NAME=BIG FISHER POND   DATE=80483   SPECIES=GOLDEN SHINER -----------

 STATCO  ID GEAR TL  WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23021353 1   GN  110 14      .   .   .   .   .   .   .   .   .   .   .   .
23021353 2   GN  112 14      .   .   .   .   .   .   .   .   .   .   .   .
23021353 3   GN  110 13      .   .   .   .   .   .   .   .   .   .   .   .
23021353 4   GN  109 14      .   .   .   .   .   .   .   .   .   .   .   .
23021353 5   GN   96  9      .   .   .   .   .   .   .   .   .   .   .   .
23021353 6   GN  102  9      .   .   .   .   .   .   .   .   .   .   .   .

--------- NAME=BIG FISHER POND   DATE=80483   SPECIES=NO.REDBELLY DACE ---------

 STATCO  ID GEAR TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23021353  1  MT  51 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353  2  MT  52 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353  3  MT  52 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353  4  MT  50 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353  5  MT  71 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353  6  MT  50 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353  7  MT  55 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353  8  MT  51 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353  9  MT  50 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 10  MT  43 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 11  MT  44 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 12  MT  60 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 13  MT  50 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 14  MT  51 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 15  MT  50 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 16  MT  52 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 17  MT  73 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 18  MT  52 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 19  MT  51 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 20  MT  68 .       .   .   .   .   .   .   .   .   .   .   .   .
23021153 21  MT  51 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 22  MT  58 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 23  MT  50 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 24  MT  52 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 25  MT  53 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 26  MT  49 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 27  MT  46 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 28  MT  52 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 29  MT  50 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 30  MT  49 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 31  MT  52 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 32  MT  55 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 33  MT  60 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 34  MT  47 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 35  MT  54 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 36  MT  50 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 37  MT  51 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 38  MT  50 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 39  MT  50 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 40  MT  51 .       .   .   .   .   .   .   .   .   .   .   .   .
23021353 41  MT  48 .       .   .   .   .   .   .   .   .   .   .   .   .
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--------- NAME=BIG FISHER POND   DATE=80483   SPECIES=NO.REDBELLY DACE ---------

  STATCO  ID GEAR  TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021353 42   MT  56  .        .   .   .   .   .   .   .   .   .   .   .   .
 23021353 43   MT  45  .        .   .   .   .   .   .   .   .   .   .   .   .
 23021353 44   MT  51  .        .   .   .   .   .   .   .   .   .   .   .   .
 23021353 45   MT  49  .        .   .   .   .   .   .   .   .   .   .   .   .
 23021353 46   MT  50  .        .   .   .   .   .   .   .   .   .   .   .   .
 23021353 47   MT  55  .        .   .   .   .   .   .   .   .   .   .   .   .
 23021353 48   MT  50  .        .   .   .   .   .   .   .   .   .   .   .   .
 23021353 49   MT  54  .        .   .   .   .   .   .   .   .   .   .   .   .
 23021353 50   MT  98  .        .   .   .   .   .   .   .   .   .   .   .   .
 23021353 51   MT  95  .        .   .   .   .   .   .   .   .   .   .   .   .
 23021353 52   MT  73  .        .   .   .   .   .   .   .   .   .   .   .   .
 23021353 53   MT  51  .        .   .   .   .   .   .   .   .   .   .   .   .
 23021353 54   MT  82  .        .   .   .   .   .   .   .   .   .   .   .   .

------------ NAME=BIG FISHER POND   DATE=80483   SPECIES=PEARL DACE ------------

  STATCO  ID GEAR  TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021353 1    MT  96  .        .   .   .   .   .   .   .   .   .   .   .   .
 23021353 2    MT  75  .        .   .   .   .   .   .   .   .   .   .   .   .
 23021353 3    MT  89  .        .   .   .   .   .   .   .   .   .   .   .   .
 23021353 4    MT  99  .        .   .   .   .   .   .   .   .   .   .   .   .
 23021353 5    MT  81  .        .   .   .   .   .   .   .   .   .   .   .   .

----------- NAME=BIG FISHER POND   DATE=80483   SPECIES=WHITE SUCKER -----------

  STATCO  ID GEAR TL   WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021353  1  GN  191           3  201 44  98   .   .   .   .   .   .   .   .
 23021353  2  GN  311 336   F   3  200 39  88   .   .   .   .   .   .   .   .
 23021353  3  GN  287 249   M   3  160 65  88   .   .   .   .   .   .   .   .
 23021353  4  GN  349 488   F   3  193 32  89   .   .   .   .   .   .   .   .
 23021353  5  GN  218 110       1  130 69   .   .   .   .   .   .   .   .   .
 23021353  6  GN  209  98   M   1   97 42   .   .   .   .   .   .   .   .   .
 23021353  7  GN  123  19       0   55  .   .   .   .   .   .   .   .   .   .
 23021353  8  GN  119  19       0   53  .   .   .   .   .   .   .   .   .   .
 23021353  9  GN  318 390   M   3  189 58  85   .   .   .   .   .   .   .   .
 23021353 10  GN  241 179   M   2  116 40  75   .   .   .   .   .   .   .   .
 23021353 11  GN  211 110   F   1  112 51   .   .   .   .   .   .   .   .   .
 23021353 12  GN  213 107   M   1  122 54   .   .   .   .   .   .   .   .   .
 23021353 13  GN  214 105       1  120 54   .   .   .   .   .   .   .   .   .
 23021353 14  GN  183  71       1   88 35   .   .   .   .   .   .   .   .   .
 23021353 15  GN  217 112       1  125 55   .   .   .   .   .   .   .   .   .
 23021353 16  GN  203  96   F   1  115 58   .   .   .   .   .   .   .   .   .
 23021353 17  GN  234 146       2  149 56  79   .   .   .   .   .   .   .   .
 23021353 18  GN  198  90   M   1  106 49   .   .   .   .   .   .   .   .   .
 23021353 19  GN  176  67       1  105 41   .   .   .   .   .   .   .   .   .
 23021353 20  GN  181  72   M   1  101 50   .   .   .   .   .   .   .   .   .
 23021353 21  GN  339 494   F   .    .  .   .   .   .   .   .   .   .   .   .
 23021353 22  GN  287 278   M   .    .  .   .   .   .   .   .   .   .   .   .
 23021353 23  GN  321 369   M   .    .  .   .   .   .   .   .   .   .   .   .
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----------- NAME=BIG FISHER POND   DATE=80483   SPECIES=WHITE SUCKER -----------

  STATCO   ID GEAR TL   WT  SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021353 24   GN  287 323   M   .   .   .   .   .   .   .   .   .   .   .   .
 23021353 25   GN  294 275   M   .   .   .   .   .   .   .   .   .   .   .   .
 23021353 26   GN  269 225   F   .   .   .   .   .   .   .   .   .   .   .   .
 23021353 27   GN  342 474   F   .   .   .   .   .   .   .   .   .   .   .   .
 23021353 28   GN  274 235   F   .   .   .   .   .   .   .   .   .   .   .   .
 23021353 29   GN  213 110       .   .   .   .   .   .   .   .   .   .   .   .
 23021353 30   GN  246 179   F   .   .   .   .   .   .   .   .   .   .   .   .
 23021353 31   GN  226 133   M   .   .   .   .   .   .   .   .   .   .   .   .
 23021353 32   GN  233 139   F   .   .   .   .   .   .   .   .   .   .   .   .
 23021353 33   GN  244 158   M   .   .   .   .   .   .   .   .   .   .   .   .
 23021353 34   GN  218 113       .   .   .   .   .   .   .   .   .   .   .   .
 23021353 35   GN  218 120   F   .   .   .   .   .   .   .   .   .   .   .   .
 23021353 36   GN  231 136   F   .   .   .   .   .   .   .   .   .   .   .   .
 23021353 37   GN  228 138   F   .   .   .   .   .   .   .   .   .   .   .   .
 23021353 38   GN  241 156   M   .   .   .   .   .   .   .   .   .   .   .   .
 23021353 39   GN  218 117   F   .   .   .   .   .   .   .   .   .   .   .   .
 23021353 40   GN  205  97       .   .   .   .   .   .   .   .   .   .   .   .
 23021353 41   GN  224 115       .   .   .   .   .   .   .   .   .   .   .   .
 23021353 42   GN  223 127   F   .   .   .   .   .   .   .   .   .   .   .   .
 23021353 43   GN  206  95   M   .   .   .   .   .   .   .   .   .   .   .   .
 23021353 44   GN  264 230   F   .   .   .   .   .   .   .   .   .   .   .   .
 23021353 45   GN  211 101   M   .   .   .   .   .   .   .   .   .   .   .   .
 23021353 46   GN  232   .       .   .   .   .   .   .   .   .   .   .   .   .
 23021353 47   GN  222 124   M   .   .   .   .   .   .   .   .   .   .   .   .
 23021353 48   GN  261 200   F   .   .   .   .   .   .   .   .   .   .   .   .
 23021353 49   GN  211 108   F   .   .   .   .   .   .   .   .   .   .   .   .
 23021353 50   GN  207   .       .   .   .   .   .   .   .   .   .   .   .   .
 23021353 51   GN  270 105       .   .   .   .   .   .   .   .   .   .   .   .
 23021353 52   GN  214 108   M   .   .   .   .   .   .   .   .   .   .   .   .
 23021353 53   GN  234 141   M   .   .   .   .   .   .   .   .   .   .   .   .
 23021353 54   GN  242 165   F   .   .   .   .   .   .   .   .   .   .   .   .
 23021353 55   GN  218   .       .   .   .   .   .   .   .   .   .   .   .   .
 23021353 56   GN  228 125   F   .   .   .   .   .   .   .   .   .   .   .   .
 23021353 57   GN  226 117       .   .   .   .   .   .   .   .   .   .   .   .
 23021353 58   GN  219 100       .   .   .   .   .   .   .   .   .   .   .   .
 23021353 59   GN  228 122       .   .   .   .   .   .   .   .   .   .   .   .
 23021353 60   GN  221 109       .   .   .   .   .   .   .   .   .   .   .   .
 23021353 61   GN  233   .       .   .   .   .   .   .   .   .   .   .   .   .
 23021353 62   GN  194   .       .   .   .   .   .   .   .   .   .   .   .   .
 23021353 63   GN  221 116   F   .   .   .   .   .   .   .   .   .   .   .   .
 23021353 64   GN  218 115   F   .   .   .   .   .   .   .   .   .   .   .   .
 23021353 65   GN  208  93   F   .   .   .   .   .   .   .   .   .   .   .   .
 23021353 66   GN  229 106       .   .   .   .   .   .   .   .   .   .   .   .
 23021353 67   GN  243 162   F   .   .   .   .   .   .   .   .   .   .   .   .
 23021353 68   GN  250 150   M   .   .   .   .   .   .   .   .   .   .   .   .
 23021353 69   GN  224 139   F   .   .   .   .   .   .   .   .   .   .   .   .
 23021353 70   GN  229 134   F   .   .   .   .   .   .   .   .   .   .   .   .
 23021353 71   GN  241 159       .   .   .   .   .   .   .   .   .   .   .   .
 23021353 72   GN  221 129   M   .   .   .   .   .   .   .   .   .   .   .   .
 23021353 73   GN  223 113   M   .   .   .   .   .   .   .   .   .   .   .   .
 23021353 74   GN  228 130   F   .   .   .   .   .   .   .   .   .   .   .   .
 23021353 75   GN  241 165   M   .   .   .   .   .   .   .   .   .   .   .   .
 23021353 76   GN  210   .       .   .   .   .   .   .   .   .   .   .   .   .
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----------- NAME=BIG FISHER POND   DATE=80483   SPECIES=WHITE SUCKER -----------

 STATCO    ID GEAR TL   WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23021353   77  GN  146   .       .   .   .   .   .   .   .   .   .   .   .   .
23021353   78  GN  214 101       .   .   .   .   .   .   .   .   .   .   .   .
23021353   79  GN  222 126  M    .   .   .   .   .   .   .   .   .   .   .   .
23021353   80  GN  246 168  F    .   .   .   .   .   .   .   .   .   .   .   .
23021353   81  GN  230 138       .   .   .   .   .   .   .   .   .   .   .   .
23021353   82  GN  234   .       .   .   .   .   .   .   .   .   .   .   .   .
23021353   83  GN  209   .       .   .   .   .   .   .   .   .   .   .   .   .
23021353   84  GN  224 118       .   .   .   .   .   .   .   .   .   .   .   .
23021353   85  GN  192  93       .   .   .   .   .   .   .   .   .   .   .   .
23021353   86  GN  230 148  F    .   .   .   .   .   .   .   .   .   .   .   .
23021353   87  GN  197  81  M    .   .   .   .   .   .   .   .   .   .   .   .
23021353   88  GN  186  72  M    .   .   .   .   .   .   .   .   .   .   .   .
23021353   89  GN  207 105  M    .   .   .   .   .   .   .   .   .   .   .   .
23021353   90  GN  164   .       .   .   .   .   .   .   .   .   .   .   .   .
23021353   91  GN  184  69       .   .   .   .   .   .   .   .   .   .   .   .
23021353   92  GN  180  70       .   .   .   .   .   .   .   .   .   .   .   .
23021353   93  GN  212 102       .   .   .   .   .   .   .   .   .   .   .   .
23021353   94  GN  222 115  F    .   .   .   .   .   .   .   .   .   .   .   .
23021353   95  GN  192   .       .   .   .   .   .   .   .   .   .   .   .   .
23021353   96  GN  191  80  M    .   .   .   .   .   .   .   .   .   .   .   .
23021353   97  GN  182  67       .   .   .   .   .   .   .   .   .   .   .   .
23021353   98  GN  186  73       .   .   .   .   .   .   .   .   .   .   .   .
23021353   99  GN  168  48       .   .   .   .   .   .   .   .   .   .   .   .
23021353  100  GN  209 102  F    .   .   .   .   .   .   .   .   .   .   .   .
23021353  101  GN  187  77       .   .   .   .   .   .   .   .   .   .   .   .
23021353  102  GN  166   .       .   .   .   .   .   .   .   .   .   .   .   .
23021353  103  GN  162  51       .   .   .   .   .   .   .   .   .   .   .   .
23021353  104  GN  180   .       .   .   .   .   .   .   .   .   .   .   .   .
23021353  105  GN  163  49       .   .   .   .   .   .   .   .   .   .   .   .
23021353  106  GN  184  71       .   .   .   .   .   .   .   .   .   .   .   .
23021353  107  GN  189  71       .   .   .   .   .   .   .   .   .   .   .   .
23021353  108  GN  162  50       .   .   .   .   .   .   .   .   .   .   .   .
23021353  109  GN  221 123       .   .   .   .   .   .   .   .   .   .   .   .
23021353  110  GN  161  49       .   .   .   .   .   .   .   .   .   .   .   .
23021353  111  GN  170  56       .   .   .   .   .   .   .   .   .   .   .   .
23021353  112  GN  213   .       .   .   .   .   .   .   .   .   .   .   .   .
23021353  113  GN  201  94       .   .   .   .   .   .   .   .   .   .   .   .
23021353  114  GN  184  63       .   .   .   .   .   .   .   .   .   .   .   .
23021353  115  GN  172   .       .   .   .   .   .   .   .   .   .   .   .   .
23021353  116  GN  196  82       .   .   .   .   .   .   .   .   .   .   .   .
23021353  117  GN  205  95       .   .   .   .   .   .   .   .   .   .   .   .
23021353  118  GN  181  72       .   .   .   .   .   .   .   .   .   .   .   .
23021353  119  GN  122   .       .   .   .   .   .   .   .   .   .   .   .   .
23021353  120  GN  187  81       .   .   .   .   .   .   .   .   .   .   .   .
23021353  121  GN  186  82       .   .   .   .   .   .   .   .   .   .   .   .
23021353  122  GN  104   .       .   .   .   .   .   .   .   .   .   .   .   .
23021353  123  GN  158  45       .   .   .   .   .   .   .   .   .   .   .   .
23021353  124  GN  112  20       .   .   .   .   .   .   .   .   .   .   .   .
23021353  125  GN  157  45       .   .   .   .   .   .   .   .   .   .   .   .
23021353  126  GN  184  68       .   .   .   .   .   .   .   .   .   .   .   .
23021353  127  GN  108   .       .   .   .   .   .   .   .   .   .   .   .   .
23021353  128  GN  107   .       .   .   .   .   .   .   .   .   .   .   .   .
23021353  129  GN  104   .       .   .   .   .   .   .   .   .   .   .   .   .
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------------ NAME=BROWNS POND   DATE=90982   SPECIES=BROWN BULLHEAD ------------

 STATCO  ID GEAR TL   WT  SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23005360 1   GN  270 216       .   .   .   .   .   .   .   .   .   .   .    .

------------ NAME=BROWNS POND   DATE=90982   SPECIES=CHAIN PICKEREL ------------

 STATCO  ID GEAR TL    WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23005360  1  GN  264   95  F   2  163 69  123   .   .   .   .   .   .   .    .
23005360  2  GN  200   38  F   1   91 60    .   .   .   .   .   .   .   .    .
23005360  3  GN  358  225  M   3  194 74  135   .   .   .   .   .   .   .    .
23005360  4  GN  404  382  M   5  195 95  122 173 188   .   .   .   .   .    .
23005360  5  GN  245   72  M   2  152 65  135   .   .   .   .   .   .   .    .
23005360  6  GN  398  358  M   5  239 97  168 224 231   .   .   .   .   .    .
23005360  7  GN  377    .  F   4  207 81  124 184   .   .   .   .   .   .    .
23005360  8  GN  180    .      1  123 79    .   .   .   .   .   .   .   .    .
23005360  9  GN  460    .  M   5  234 96  122 177 208   .   .   .   .   .    .
23005360 10  GN  440    .  M   5  248 67  126 219 238   .   .   .   .   .    .

------------ NAME=BROWNS POND   DATE=90982   SPECIES=GOLDEN SHINER ------------

 STATCO  ID GEAR TL    WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23005360  1  GN  160   41      3  245  90 152   .   .   .   .   .   .   .    .
23005360  2  GN  214  115      5  275 110 172 236 263   .   .   .   .   .    .
23005360  3  GN  171   50      4  191  50 111 180   .   .   .   .   .   .    .
23005360  4  GN  165   40      4  156  37  87 148   .   .   .   .   .   .    .
23005360  5  GN  185   72      5  265  73 162 226 248   .   .   .   .   .    .
23005360  6  GN  184   58      .    .   .   .   .   .   .   .   .   .   .    .
23005360  7  GN  189   71      5  230  86 155 210 221   .   .   .   .   .    .
23005360  8  GN  180   78      5  322 112 195 290 310   .   .   .   .   .    .
23005360  9  GN  180   60      5  261 100 190 240 251   .   .   .   .   .    .
23005360 10  GN  120   47      .  254 101 143 236   .   .   .   .   .   .    .
23005360 11  GN  168   47      4  273 118 165 262   .   .   .   .   .   .    .

------------- NAME=BROWNS POND   DATE=90982   SPECIES=YELLOW PERCH ------------

 STATCO  ID GEAR TL   WT  SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23005360  1  GN  276 255   M   .    .   .   .   .   .   .   .   .   .   .    .
23005360  2  GN  260 216   F   .    .   .   .   .   .   .   .   .   .   .    .
23005360  3  GN  250 201   F   .    .   .   .   .   .   .   .   .   .   .    .
23005360  4  GN  250 185   M   .    .   .   .   .   .   .   .   .   .   .    .
23005360  5  GN  255 198   M   .    .   .   .   .   .   .   .   .   .   .    .
23005360  6  GN  192  82   M   .    .   .   .   .   .   .   .   .   .   .    .
23005360  7  GN  248 167   F   .    .   .   .   .   .   .   .   .   .   .    .
23005360  8  GN  275 223   F   .    .   .   .   .   .   .   .   .   .   .    .
23005360  9  GN  260 204   F   .    .   .   .   .   .   .   .   .   .   .    .
23005360 10  GN  239 160   M   .    .   .   .   .   .   .   .   .   .   .    .
23005360 11  GN  186  72   M   .    .   .   .   .   .   .   .   .   .   .    .
23005360 12  GN  176  60       .    .   .   .   .   .   .   .   .   .   .
23005360 13  GN  139  29       2  201  53 142   .   .   .   .   .   .        .
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------------- NAME=BROWNS POND   DATE=90982   SPECIES=YELLOW PERCH -------------

  STATCO ID GEAR  TL  WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23005360 14  GN  235 135  F    .   .   .   .   .   .   .   .   .   .   .    .
23005360 15  GN  150  32       2 245  68 175   .   .   .   .   .   .   .    .
23005360 16  GN  180  71  M    4 245  49 119 224   .   .   .   .   .   .    .
23005360 17  GN  219 130  M    4 209  69 119 187   .   .   .   .   .   .    .
23005360 18  GN  175  60  F    3 245  46 129   .   .   .   .   .   .   .    .
23005360 19  GN  181  71       3 233  47 105   .   .   .   .   .   .   .    .
23005360 20  GN  186  72  M    4 273  61 142 248   .   .   .   .   .   .    .
23005360 21  GN  149  35       2 178  53 119   .   .   .   .   .   .   .    .
23005360 22  GN  224 136  M    4 208  45 105 185   .   .   .   .   .   .    .
23005360 23  GN  175  62  M    3 252  51 130   .   .   .   .   .   .   .    .
23005360 24  GN  189  76  M    4 303  60 135 289   .   .   .   .   .   .    .
23005360 25  GN  250   .  M    5 315  61 131 270 297   .   .   .   .   .    .
23005360 26  GN  179  70       4 262  56 129 233   .   .   .   .   .   .    .
23005360 27  GN  154  41       3 229  53 107   .   .   .   .   .   .   .    .
23005360 28  GN  159  47  M    3 231  51 124   .   .   .   .   .   .   .    .
23005360 29  GN  179  64  M    4 266  37 110 236   .   .   .   .   .   .    .
23005360 30  GN  170  60  M    4 203  44  88 165   .   .   .   .   .   .    .
23005360 31  GN  150  43  M    .   .   .   .   .   .   .   .   .   .   .    .
23005360 32  GN  188  64       .   .   .   .   .   .   .   .   .   .   .    .
23005360 33  GN  100  13       .   .   .   .   .   .   .   .   .   .   .    .
23005360 34  GN  175  60  F    .   .   .   .   .   .   .   .   .   .   .    .
23005360 35  GN  195  86  F    .   .   .   .   .   .   .   .   .   .   .    .
23005360 36  GN  118  20       .   .   .   .   .   .   .   .   .   .   .    .
23005360 37  GN  145  34       .   .   .   .   .   .   .   .   .   .   .    .
23005360 38  GN  148  35       .   .   .   .   .   .   .   .   .   .   .    .
23005360 39  GN  165  54  F    .   .   .   .   .   .   .   .   .   .   .    .
23005360 40  GN    .   .       .   .   .   .   .   .   .   .   .   .   .    .
23005360 41  GN  150  39  M    .   .   .   .   .   .   .   .   .   .   .    .
23005360 42  GN  239   .  M    .   .   .   .   .   .   .   .   .   .   .    .
23005360 43  GN  295   .  F    .   .   .   .   .   .   .   .   .   .   .    .
23005360 44  GN  249   .  F    .   .   .   .   .   .   .   .   .   .   .    .
23005360 45  GN  242   .  F    .   .   .   .   .   .   .   .   .   .   .    .
23005360 46  GN  264   .  M    .   .   .   .   .   .   .   .   .   .   .    .
23005360 47  GN  195   .  M    .   .   .   .   .   .   .   .   .   .   .    .
23005360 48  GN  255   .  F    .   .   .   .   .   .   .   .   .   .   .    .
23005360 49  GN  260   .  M    .   .   .   .   .   .   .   .   .   .   .    .
23005360 50  GN  265   .  M    .   .   .   .   .   .   .   .   .   .   .    .
23005360 51  GN  265   .  F    .   .   .   .   .   .   .   .   .   .   .    .
23005360 52  GN  272   .  F    .   .   .   .   .   .   .   .   .   .   .    .
23005360 53  GN  240   .  F    .   .   .   .   .   .   .   .   .   .   .    .
23005360 54  GN  260   .  F    .   .   .   .   .   .   .   .   .   .   .    .
23005360 55  GN  244   .  F    .   .   .   .   .   .   .   .   .   .   .    .
23005360 56  GN  266   .  F    .   .   .   .   .   .   .   .   .   .   .    .
23005360 57  GN  261   .  F    .   .   .   .   .   .   .   .   .   .   .    .
23005360 58  GN  275   .  F    .   .   .   .   .   .   .   .   .   .   .    .
23005360 59  GN  263   .  F    .   .   .   .   .   .   .   .   .   .   .    .
23005360 60  GN  248   .  F    .   .   .   .   .   .   .   .   .   .   .    .
23005360 61  GN  289   .  F    .   .   .   .   .   .   .   .   .   .   .    .
23005360 62  GN  255   .  F    .   .   .   .   .   .   .   .   .   .   .    .
23005360 63  GN  231   .  F    .   .   .   .   .   .   .   .   .   .   .    .
23005360 64  GN  250   .  F    .   .   .   .   .   .   .   .   .   .   .    .
23005360 65  GN  250   .  F    .   .   .   .   .   .   .   .   .   .   .    .
23005360 66  GN  246   .  M    .   .   .   .   .   .   .   .   .   .   .    .
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----------------- NAME=CLOUD POND   DATE=92983   SPECIES=EMPTY -----------------

  STATCO   ID GEAR TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021335 .    GN   .  .         .   .   .   .   .   .   .   .   .   .   .    .
 23021335 .    MT   .  .         .   .   .   .   .   .   .   .   .   .   .    .


---------------- NAME=CRATER POND   DATE=92983   SPECIES=EMPTY -----------------

  STATCO   ID GEAR TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021333 .    GN   .  .         .   .   .   .   .   .   .   .   .   .   .    .
 23021333 .    MT   .  .         .   .   .   .   .   .   .   .   .   .   .    .


-------------- NAME=DAVIS POND   DATE=90182   SPECIES=BROOK TROUT --------------

  STATCO  ID GEAR TL   WT  SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23011367 1   GN  288 293   M   3   44  15  26   .   .   .   .   .   .   .    .


------------- NAME=DAVIS POND   DATE=90182   SPECIES=CHAIN PICKEREL -------------

  STATCO  ID GEAR TL   WT  SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23011367 1   GN  282 122   F   2  140 37   98   .   .   .   .   .   .   .    .
 23011367 2   GN  332 203   F   2  124 46  103   .   .   .   .   .   .   .    .
 23011367 3   GN  300 161   M   2  138 39  116   .   .   .   .   .   .   .    .
 23011367 4   GN  280 123   F   2  151 38   84   .   .   .   .   .   .   .    .
 23011367 5   GN  280 114   F   2  105 49   82   .   .   .   .   .   .   .    .
 23011367 6   GN  275 116   F   2  163 43  103   .   .   .   .   .   .   .    .
 23011367 7   GN  177  26   F   1   65 30    .   .   .   .   .   .   .   .    .
 23011367 8   GN  292 144   M   2  163 40   95   .   .   .   .   .   .   .    .
 23011367 9   MT  132  10   M   1   79 32    .   .   .   .   .   .   .   .    .


----------- NAME=EIGHTEEN POND   DATE=70684   SPECIES=CHAIN PICKEREL -----------

  STATCO  ID GEAR TL   WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021356  1  GN  157  22      .   .   .   .   .   .   .   .   .   .   .    .
 23021356  2  GN  159  22      .   .   .   .   .   .   .   .   .   .   .    .
 23021356  3  GN  143  13      .   .   .   .   .   .   .   .   .   .   .    .
 23021356  4  GN  164  21      .   .   .   .   .   .   .   .   .   .   .    .
 23021356  5  GN  179  30      .   .   .   .   .   .   .   .   .   .   .    .
 23021356  6  GN  169  21      .   .   .   .   .   .   .   .   .   .   .    .
 23021356  7  GN  153  20      .   .   .   .   .   .   .   .   .   .   .    .
 23021356  8  GN  181  28      .   .   .   .   .   .   .   .   .   .   .    .
 23021356  9  GN  216  51      .   .   .   .   .   .   .   .   .   .   .    .
 23021356 10  GN  232  58      .   .   .   .   .   .   .   .   .   .   .    .
 23021356 11  GN  228  55      .   .   .   .   .   .   .   .   .   .   .    .
 23021356 12  GN  254  74      .   .   .   .   .   .   .   .   .   .   .    .
 23021356 13  GN  266  92      .   .   .   .   .   .   .   .   .   .   .    .
 23021356 14  GN  278 113      .   .   .   .   .   .   .   .   .   .   .    .
 23021356 15  GN  287 117      .   .   .   .   .   .   .   .   .   .   .    .
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----------- NAME=EIGHTEEN POND   DATE=70684   SPECIES=CHAIN PICKEREL -----------

 STATCO   ID GEAR  TL   WT   SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23021356 16   GN   303 141        .   .   .   .   .   .   .   .   .   .   .   .
23021356 17   GN   423 408        .   .   .   .   .   .   .   .   .   .   .   .
23021356  1   MT   188  30        .   .   .   .   .   .   .   .   .   .   .   .

--------------- NAME=EIGHTEEN POND   DATE=70684   SPECIES=EMPTY ---------------

  STATCO  ID GEAR TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

  23021356 .   TN  .  .      .   .   .   .   .   .   .   .   .   .   .   .

----------- NAME=EIGHTEEN POND   DATE=70684   SPECIES=GOLDEN SHINER ------------

  STATCO  ID GEAR TL  WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

  23021356  1  GN  142 26        .   .   .   .   .   .   .   .   .   .   .   .
  23021356  2  GN  110 10        .   .   .   .   .   .   .   .   .   .   .   .
  23021356  3  GN  124 10        .   .   .   .   .   .   .   .   .   .   .   .
  23021356  4  GN  175 53        .   .   .   .   .   .   .   .   .   .   .   .
  23021356  5  GN  136 25        .   .   .   .   .   .   .   .   .   .   .   .
  23021356  6  GN  111 12        .   .   .   .   .   .   .   .   .   .   .   .
  23021356  7  GN  110  8        .   .   .   .   .   .   .   .   .   .   .   .
  23021356  8  GN   98  8        .   .   .   .   .   .   .   .   .   .   .   .
  23021356  9  GN  126 17        .   .   .   .   .   .   .   .   .   .   .   .
  23021356 10  GN  142 26        .   .   .   .   .   .   .   .   .   .   .   .
  23021356 11  GN   93  6        .   .   .   .   .   .   .   .   .   .   .   .
  23021356 12  GN  142 25        .   .   .   .   .   .   .   .   .   .   .   .
  23021356 13  GN  120 15        .   .   .   .   .   .   .   .   .   .   .   .
  23021356 14  GN   87  5        .   .   .   .   .   .   .   .   .   .   .   .
  23021356 15  GN   87  5        .   .   .   .   .   .   .   .   .   .   .   .
  23021356 16  GN   79 21        .   .   .   .   .   .   .   .   .   .   .   .
  23021356 17  GN   88  5        .   .   .   .   .   .   .   .   .   .   .   .
  23021356 18  GN   86  5        .   .   .   .   .   .   .   .   .   .   .   .
  23021356 19  GN   89  5        .   .   .   .   .   .   .   .   .   .   .   .
  23021356 20  GN   95  7        .   .   .   .   .   .   .   .   .   .   .   .
  23021356 21  GN   98  5        .   .   .   .   .   .   .   .   .   .   .   .
  23021356 22  GN  143 26        .   .   .   .   .   .   .   .   .   .   .   .
  23021356 23  GN  104  8        .   .   .   .   .   .   .   .   .   .   .   .
  23021356 24  GN  116 14        .   .   .   .   .   .   .   .   .   .   .   .
  23021356 25  GN  103  9        .   .   .   .   .   .   .   .   .   .   .   .
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----------- NAME=EIGHTEEN POND   DATE=82483   SPECIES=CHAIN PICKEREL -----------

 STATCO   ID  GEAR  TL   WT  SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23021356 101  GN   314  163   M   2  147  49 101   .   .   .   .   .   .   .   .
23021356   2  GN   457  659   M   4  162  60 113 153   .   .   .   .   .   .   .
23021356   3  GN   455  549   F   4  222  86 133 207   .   .   .   .   .   .   .
23021356   4  GN   282  131   M   2  138  54 105   .   .   .   .   .   .   .   .
23021356   5  GN   198   35   F   1  123  98   .   .   .   .   .   .   .   .   .
23021356   6  GN   195   33       1   72  42   .   .   .   .   .   .   .   .   .
23021356   7  GN   342  216   M   3  185  67 130   .   .   .   .   .   .   .   .
23021356   8  MT    82    3       0   78   .   .   .   .   .   .   .   .   .   .

----------- NAME=EIGHTEEN POND   DATE=82483   SPECIES=GOLDEN SHINER -----------

  STATCO  ID GEAR  TL   WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021356 1   GN  132  21       2  176  80 140  .   .   .   .   .   .   .   .
 23021356 2   GN  107   9       2  173  90 138  .   .   .   .   .   .   .   .
 23021356 3   GN  119  13       2  174  92 132  .   .   .   .   .   .   .   .
 23021356 4   GN  120  14       2  173  76 145  .   .   .   .   .   .   .   .
 23021356 5   GN  114  11       2  172  70 121  .   .   .   .   .   .   .   .

-------------- NAME=FOGG POND   DATE=91483   SPECIES=BROOK TROUT --------------

 STATCO   ID GEAR  TL   WT  SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23021359  1  GN   229  134   F   2  38  16  29   .   .   .   .   .   .   .   .
23021359  2  GN   195   78   F   2  33  14  25   .   .   .   .   .   .   .   .
23021359  3  GN   195   74   M   2  42  20  30   .   .   .   .   .   .   .   .
23021359  4  GN   175   52   F   2  40  15  30   .   .   .   .   .   .   .   .
23021359  5  GN   182   57   M   2  42  15  32   .   .   .   .   .   .   .   .
23021359  6  GN   205   80   M   2  45  15  32   .   .   .   .   .   .   .   .
23021359  7  GN   198   75   F   2  46  14  29   .   .   .   .   .   .   .   .
23021359  8  GN   208   89   M   2  40  15  29   .   .   .   .   .   .   .   .
23021359  9  GN   196   76   M   2  34  13  24   .   .   .   .   .   .   .   .
23021359 10  GN   192   68   M   2  30  10  21   .   .   .   .   .   .   .   .
23021359 11  GN   202   80   M   2  36  13  25   .   .   .   .   .   .   .   .
23021359 12  GN   301  281   M   3  47  12  26   .   .   .   .   .   .   .   .
23021359 13  GN   178   54   M   2  32  15  24   .   .   .   .   .   .   .   .
23021359 14  GN   209   96   M   2  42  15  29   .   .   .   .   .   .   .   .
23021359 15  GN   185   59   M   2  30  11  20   .   .   .   .   .   .   .   .
23021359 16  GN   205   85   M   2  41  17  32   .   .   .   .   .   .   .   .
23021359 17  GN   200   78   F   2  38  15  26   .   .   .   .   .   .   .   .
23021359 18  GN   198   80   F   2  37  14  27   .   .   .   .   .   .   .   .
23021359 19  GN   355  461   M   4  53  12  23  44   .   .   .   .   .   .   .
23021359 20  GN   270  237   F   3  48  17  29   .   .   .   .   .   .   .   .
23021359 21  GN   304  318   M   3  47  15  30   .   .   .   .   .   .   .   .
23021359 22  GN   185   56   M   2  32  14  23   .   .   .   .   .   .   .   .
23021359 23  GN   172   51   M   2  35  12  25   .   .   .   .   .   .   .   .
23021359 24  GN   189   64   F   2  37  13  27   .   .   .   .   .   .   .   .
23021359 25  GN   208   97   M   2  40  16  29   .   .   .   .   .   .   .   .
23021359 26  GN   188   67   F   2  36  13  28   .   .   .   .   .   .   .   .
23021359 27  GN   201   76   F   2  37  11  26   .   .   .   .   .   .   .   .
23021359 28  GN   202   75   M   2  40  16  28   .   .   .   .   .   .   .   .
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--------------- NAME=FOGG POND   DATE=91483   SPECIES=PEARL DACE ---------------

 STATCO   ID GEAR   TL  WT SEX AGE RAD AN1  AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23021359   1  GN    75   4       .   59 45    .   .   .   .   .   .   .   .    .
23021359   2  GN    76   5       1   58 44    .   .   .   .   .   .   .   .    .
23021359   3  GN   119  14   F   3  120 62   83   .   .   .   .   .   .   .    .
23021359   4  GN    98   9   M   2   77 54   69   .   .   .   .   .   .   .    .
23021359   5  GN    95   8   M   2   74 47   61   .   .   .   .   .   .   .    .
23021359   6  GN   100  10   F   2   93 57   82   .   .   .   .   .   .   .    .
23021359   7  GN    96   8   M   2   82 59   71   .   .   .   .   .   .   .    .
23021359   8  GN   100   9   F   2   74 41   64   .   .   .   .   .   .   .    .
23021359   9  GN   105  11   F   2   92 49   84   .   .   .   .   .   .   .    .
23021359  10  GN    80   6       1   71 48    .   .   .   .   .   .   .   .    .
23021359  11  GN   134  17   F   3  121 58   94   .   .   .   .   .   .   .    .
23021359  12  GN   115  13       2  115 65  103   .   .   .   .   .   .   .    .
23021359  13  GN   126  18   F   3  108 53   90   .   .   .   .   .   .   .    .
23021359  14  GN   124  15       3   98 54   74   .   .   .   .   .   .   .    .
23021359  15  GN   129  18   F   3  118 54   80   .   .   .   .   .   .   .    .
23021359  16  GN   125  15   F   2   95 51   83   .   .   .   .   .   .   .    .
23021359  17  GN   130  15   F   3  105 50   82   .   .   .   .   .   .   .    .
23021359  18  GN   120  16   F   3   90 39   65   .   .   .   .   .   .   .    .
23021359  19  GN    95   6       .    .  .    .   .   .   .   .   .   .   .    .
23021359  20  GN    85   6       .    .  .    .   .   .   .   .   .   .   .    .
23021359  21  GN   102   8       .    .  .    .   .   .   .   .   .   .   .    .
23021359  22  MT    89   7       .    .  .    .   .   .   .   .   .   .   .    .
23021359  23  MT    72   5       .    .  .    .   .   .   .   .   .   .   .    .
23021359  24  MT    80   6       .    .  .    .   .   .   .   .   .   .   .    .
23021359  25  MT    80   6       .    .  .    .   .   .   .   .   .   .   .    .
23021359  26  MT    88   6       .    .  .    .   .   .   .   .   .   .   .    .
23021359  27  MT    85   6       .    .  .    .   .   .   .   .   .   .   .    .
23021359  28  MT    65   2       .    .  .    .   .   .   .   .   .   .   .    .
23021359  29  MT    75   4       .    .  .    .   .   .   .   .   .   .   .    .
23021359  30  MT    75   4       .    .  .    .   .   .   .   .   .   .   .    .
23021359  31  MT   101   7       .    .  .    .   .   .   .   .   .   .   .    .
23021359  32  MT    60   2       .    .  .    .   .   .   .   .   .   .   .    .
23021359  33  MT    90   6       .    .  .    .   .   .   .   .   .   .   .    .
23021359  34  MT    80   6       .    .  .    .   .   .   .   .   .   .   .    .
23021359  35  MT    75   3       .    .  .    .   .   .   .   .   .   .   .    .
23021359  36  MT    76   5       .    .  .    .   .   .   .   .   .   .   .    .
23021359  37  MT    55   1       .    .  .    .   .   .   .   .   .   .   .    .
23021359  38  MT    72   4       .    .  .    .   .   .   .   .   .   .   .    .
23021359  39  MT    62   3       .    .  .    .   .   .   .   .   .   .   .    .
23021359  40  MT    54   2       .    .  .    .   .   .   .   .   .   .   .    .


------------ NAME=GARCOCK POND   DATE=72584   SPECIES=GOLDEN SHINER ------------

 STATCO   ID GEAR   TL  WT SEX AGE RAD AN1  AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23021322   1  GN    81   4       .   .   .    .   .   .   .   .   .   .   .    .
23021322   2  GN    84   5       .   .   .    .   .   .   .   .   .   .   .    .
23021322   3  GN    95   8       .   .   .    .   .   .   .   .   .   .   .    .
23021322   4  GN    94   8       .   .   .    .   .   .   .   .   .   .   .    .
23021322   5  GN   130  22       .   .   .    .   .   .   .   .   .   .   .    .
23021322   6  GN    83   5       .   .   .    .   .   .   .   .   .   .   .    .
23021322   7  GN    94   7       .   .   .    .   .   .   .   .   .   .   .    .
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------------ NAME=GARCOCK POND   DATE=72584   SPECIES=GOLDEN SHINER ------------

  STATCO   ID GEAR   TL  WT SEX AGE  RAD  AN1  AN2  AN3  AN4  AN5  AN6  AN7  AN8  AN9 AN10

23021322   8  GN    94   6       .    .    .    .    .    .    .    .    .    .    .    .
23021322   9  GN    94   6       .    .    .    .    .    .    .    .    .    .    .    .
23021322  10  GN    89   6       .    .    .    .    .    .    .    .    .    .    .    .
23021322  11  GN   102  11       .    .    .    .    .    .    .    .    .    .    .    .
23021322  12  GN    97   8       .    .    .    .    .    .    .    .    .    .    .    .
23021322  13  GN   107  13       .    .    .    .    .    .    .    .    .    .    .    .
23021322  14  GN    93   8       .    .    .    .    .    .    .    .    .    .    .    .
23021322  15  GN    89   6       .    .    .    .    .    .    .    .    .    .    .    .
23021322  16  GN   103  11       .    .    .    .    .    .    .    .    .    .    .    .
23021322  17  GN    94   8       .    .    .    .    .    .    .    .    .    .    .    .
23021322  18  GN   102   9       .    .    .    .    .    .    .    .    .    .    .    .
23021322  19  GN    89   5       .    .    .    .    .    .    .    .    .    .    .    .
23021322  20  GN   100   9       .    .    .    .    .    .    .    .    .    .    .    .
23021322   1  TN   109  13       .    .    .    .    .    .    .    .    .    .    .    .
23021322   2  TN    94   9       .    .    .    .    .    .    .    .    .    .    .    .
23021322   3  TN   112  15       .    .    .    .    .    .    .    .    .    .    .    .
23021322   .  MT     .   .       .    .    .    .    .    .    .    .    .    .    .    .

------------ NAME=GARCOCK POND   DATE=101283   SPECIES=GOLDEN SHINER ------------

  STATCO   ID GEAR   TL  WT SEX AGE  RAD  AN1  AN2  AN3  AN4  AN5  AN6  AN7  AN8  AN9 AN10

23021322   1  GN   161  52  F    .    .    .    .    .    .    .    .    .    .    .    .
23021322   2  GN   187  70  F    6  315   66  105  173  205  280    .    .    .    .    .
23021322   3  GN   170  64  F    6  197   55  100  149  170  195    .    .    .    .    .
23021322   4  GN   106  12  F    3  175   60  102    .    .    .    .    .    .    .    .
23021322   5  GN   152  44  F    .    .    .    .    .    .    .    .    .    .    .    .
23021322   6  GN   143  32  F    .    .    .    .    .    .    .    .    .    .    .    .
23021322   7  MT   112  13  M    4  181   58  109  170    .    .    .    .    .    .    .
23021322   8  MT    95   7       3  136   49   96    .    .    .    .    .    .    .    .
23021322   9  MT   101   9  F    3  147   55   98    .    .    .    .    .    .    .    .
23021322  10  MT    85   5       2  115   43   84    .    .    .    .    .    .    .    .
23021322  11  MT   100   8  F    3  145   45   80    .    .    .    .    .    .    .    .
23021322  12  MT    85   5       2  100   42   84    .    .    .    .    .    .    .    .
23021322  13  MT    52   1       .    .    .    .    .    .    .    .    .    .    .    .
23021322  14  MT    68   2       .    .    .    .    .    .    .    .    .    .    .    .
23021322  15  MT    60   1       .    .    .    .    .    .    .    .    .    .    .    .
23021322  16  MT    50   1       .    .    .    .    .    .    .    .    .    .    .    .
23021322  17  MT    49   1       .    .    .    .    .    .    .    .    .    .    .    .
23021322  18  MT    50   1       .    .    .    .    .    .    .    .    .    .    .    .
23021322  19  MT    51   1       .    .    .    .    .    .    .    .    .    .    .    .
23021322  20  MT    79   4       .    .    .    .    .    .    .    .    .    .    .    .
23021322  21  MT    66   3       .    .    .    .    .    .    .    .    .    .    .    .
23021322  22  MT    54   1       .    .    .    .    .    .    .    .    .    .    .    .
23021322  23  MT    63   1       .    .    .    .    .    .    .    .    .    .    .    .
23021322  24  MT    57   1       .    .    .    .    .    .    .    .    .    .    .    .
23021322  25  MT    55   1       .    .    .    .    .    .    .    .    .    .    .    .
23021322  26  MT    64   2       .    .    .    .    .    .    .    .    .    .    .    .
23021322  27  MT    59   1       .    .    .    .    .    .    .    .    .    .    .    .
23021322  28  MT    49   1       .    .    .    .    .    .    .    .    .    .    .    .
23021322  29  MT    75   3       .    .    .    .    .    .    .    .    .    .    .    .
23021322  30  MT    80   3       .    .    .    .    .    .    .    .    .    .    .    .
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------------ NAME=GARCOCK POND   DATE=101283   SPECIES=GOLDEN SHINER ------------

 STATCO  ID GEAR TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23021322 31  MT  68 1       .   .   .   .   .   .   .   .   .   .   .   .
23021322 32  MT  75 2       .   .   .   .   .   .   .   .   .   .   .   .
23021322 33  MT  69 3       .   .   .   .   .   .   .   .   .   .   .   .
23021322 34  MT  69 2       .   .   .   .   .   .   .   .   .   .   .   .
23021322 35  MT  64 2       .   .   .   .   .   .   .   .   .   .   .   .
23021322 36  MT  60 1       .   .   .   .   .   .   .   .   .   .   .   .
23021322 37  MT  59 1       .   .   .   .   .   .   .   .   .   .   .   .
23021322 38  MT  58 1       .   .   .   .   .   .   .   .   .   .   .   .
23021322 39  MT  48 1       .   .   .   .   .   .   .   .   .   .   .   .
23021322 40  MT  55 1       .   .   .   .   .   .   .   .   .   .   .   .
23021322 41  MT  61 1       .   .   .   .   .   .   .   .   .   .   .   .
23021322 42  MT  50 1       .   .   .   .   .   .   .   .   .   .   .   .
23021322 43  MT  46 1       .   .   .   .   .   .   .   .   .   .   .   .
23021322 44  MT  50 1       .   .   .   .   .   .   .   .   .   .   .   .
23021322 45  MT  55 1       .   .   .   .   .   .   .   .   .   .   .   .
23021322 46  MT  46 1       .   .   .   .   .   .   .   .   .   .   .   .
23021322 47  MT  50 1       .   .   .   .   .   .   .   .   .   .   .   .
23021322 48  MT  86 5       .   .   .   .   .   .   .   .   .   .   .   .
23021322 49  MT  55 1       .   .   .   .   .   .   .   .   .   .   .   .
23021322 50  MT  56 1       .   .   .   .   .   .   .   .   .   .   .   .
23021322 51  MT  56 1       .   .   .   .   .   .   .   .   .   .   .   .
23021322 52  MT  71 2       .   .   .   .   .   .   .   .   .   .   .   .
23021322 53  MT  59 1       .   .   .   .   .   .   .   .   .   .   .   .
23021322 54  MT  52 1       .   .   .   .   .   .   .   .   .   .   .   .
23021322 55  MT  60 1       .   .   .   .   .   .   .   .   .   .   .   .
23021322 56  MT  55 1       .   .   .   .   .   .   .   .   .   .   .   .
23021322 57  MT  52 1       .   .   .   .   .   .   .   .   .   .   .   .
23021322 58  MT  56 1       .   .   .   .   .   .   .   .   .   .   .   .
23021322 59  MT  52 1       .   .   .   .   .   .   .   .   .   .   .   .
23021322 60  MT  69 2       .   .   .   .   .   .   .   .   .   .   .   .
23021322 61  MT  65 2       .   .   .   .   .   .   .   .   .   .   .   .
23021322 62  MT  51 1       .   .   .   .   .   .   .   .   .   .   .   .
23021322 63  MT  52 1       .   .   .   .   .   .   .   .   .   .   .   .
23021322 64  MT  48 1       .   .   .   .   .   .   .   .   .   .   .   .
23021322 65  MT  55 1       .   .   .   .   .   .   .   .   .   .   .   .
23021322 66  MT  55 1       .   .   .   .   .   .   .   .   .   .   .   .
23021322 67  MT  56 1       .   .   .   .   .   .   .   .   .   .   .   .
23021322 68  MT  48 1       .   .   .   .   .   .   .   .   .   .   .   .
23021322 69  MT  49 1       .   .   .   .   .   .   .   .   .   .   .   .
23021322 70  MT  46 1       .   .   .   .   .   .   .   .   .   .   .   .
23021322 71  MT  54 1       .   .   .   .   .   .   .   .   .   .   .   .
23021322 72  MT  50 1       .   .   .   .   .   .   .   .   .   .   .   .
23021322 73  MT  53 1       .   .   .   .   .   .   .   .   .   .   .   .
23021322 74  MT  46 1       .   .   .   .   .   .   .   .   .   .   .   .
23021322 75  MT  85 5       .   .   .   .   .   .   .   .   .   .   .   .
23021322 76  MT  80 4       .   .   .   .   .   .   .   .   .   .   .   .
23021322 77  MT  76 3       .   .   .   .   .   .   .   .   .   .   .   .
23021322 78  MT  78 3       .   .   .   .   .   .   .   .   .   .   .   .
23021322 79  MT  88 4       .   .   .   .   .   .   .   .   .   .   .   .
23021322 80  MT  85 6       .   .   .   .   .   .   .   .   .   .   .   .
23021322 81  MT  80 4       .   .   .   .   .   .   .   .   .   .   .   .
23021322 82  MT  75 3       .   .   .   .   .   .   .   .   .   .   .   .
23021322 83  MT  71 3       .   .   .   .   .   .   .   .   .   .   .   .
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----------- NAME=GARCOCK POND   DATE=101283   SPECIES=GOLDEN SHINER -----------

  STATCO    ID GEAR TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23021322    84  MT  47 1       .   .   .   .   .   .   .   .   .   .   .    .
23021322    85  MT  76 4       .   .   .   .   .   .   .   .   .   .   .    .
23021322    86  MT  70 2       .   .   .   .   .   .   .   .   .   .   .    .
23021322    87  MT  65 2       .   .   .   .   .   .   .   .   .   .   .    .
23021322    88  MT  68 2       .   .   .   .   .   .   .   .   .   .   .    .
23021322    89  MT  60 2       .   .   .   .   .   .   .   .   .   .   .    .
23021322    90  MT  62 2       .   .   .   .   .   .   .   .   .   .   .    .
23021322    91  MT  58 1       .   .   .   .   .   .   .   .   .   .   .    .
23021322    92  MT  61 2       .   .   .   .   .   .   .   .   .   .   .    .
23021322    93  MT  54 1       .   .   .   .   .   .   .   .   .   .   .    .
23021322    94  MT  56 1       .   .   .   .   .   .   .   .   .   .   .    .
23021322    95  MT  60 2       .   .   .   .   .   .   .   .   .   .   .    .
23021322    96  MT  60 2       .   .   .   .   .   .   .   .   .   .   .    .
23021322    97  MT  64 2       .   .   .   .   .   .   .   .   .   .   .    .
23021322    98  MT  60 1       .   .   .   .   .   .   .   .   .   .   .    .
23021322    99  MT  65 2       .   .   .   .   .   .   .   .   .   .   .    .
23021322   100  MT  48 1       .   .   .   .   .   .   .   .   .   .   .    .
23021322   101  MT  57 1       .   .   .   .   .   .   .   .   .   .   .    .
23021322   102  MT  59 1       .   .   .   .   .   .   .   .   .   .   .    .
23021322   103  MT  55 1       .   .   .   .   .   .   .   .   .   .   .    .
23021322   104  MT  60 1       .   .   .   .   .   .   .   .   .   .   .    .
23021322   105  MT  55 1       .   .   .   .   .   .   .   .   .   .   .    .
23021322   106  MT  60 1       .   .   .   .   .   .   .   .   .   .   .    .
23021322   107  MT  51 1       .   .   .   .   .   .   .   .   .   .   .    .
23021322   108  MT  59 2       .   .   .   .   .   .   .   .   .   .   .    .
23021322   109  MT  59 1       .   .   .   .   .   .   .   .   .   .   .    .
23021322   110  MT  50 1       .   .   .   .   .   .   .   .   .   .   .    .
23021322   111  MT  49 1       .   .   .   .   .   .   .   .   .   .   .    .
23021322   112  MT  50 1       .   .   .   .   .   .   .   .   .   .   .    .
23021322   113  MT  55 1       .   .   .   .   .   .   .   .   .   .   .    .
23021322   114  MT  55 1       .   .   .   .   .   .   .   .   .   .   .    .
23021322   115  MT  46 1       .   .   .   .   .   .   .   .   .   .   .    .
23021322   116  MT  55 1       .   .   .   .   .   .   .   .   .   .   .    .
23021322   117  MT  49 1       .   .   .   .   .   .   .   .   .   .   .    .
23021322   118  MT  60 1       .   .   .   .   .   .   .   .   .   .   .    .
23021322   119  MT  55 1       .   .   .   .   .   .   .   .   .   .   .    .
23021322   120  MT  55 1       .   .   .   .   .   .   .   .   .   .   .    .
23021322   121  MT  55 1       .   .   .   .   .   .   .   .   .   .   .    .
23021322   122  MT  50 1       .   .   .   .   .   .   .   .   .   .   .    .
23021322   123  MT  48 1       .   .   .   .   .   .   .   .   .   .   .    .
23021322   124  MT  56 1       .   .   .   .   .   .   .   .   .   .   .    .
23021322   125  MT  48 1       .   .   .   .   .   .   .   .   .   .   .    .
23021322   126  MT  49 1       .   .   .   .   .   .   .   .   .   .   .    .
23021322   127  MT  56 1       .   .   .   .   .   .   .   .   .   .   .    .
23021322   128  MT  46 1       .   .   .   .   .   .   .   .   .   .   .    .
23021322   129  MT  50 1       .   .   .   .   .   .   .   .   .   .   .    .
23021322   130  MT  49 1       .   .   .   .   .   .   .   .   .   .   .    .
23021322   131  MT  49 1       .   .   .   .   .   .   .   .   .   .   .    .
23021322   132  MT  89 5       .   .   .   .   .   .   .   .   .   .   .    .
23021322   133  MT  70 2       .   .   .   .   .   .   .   .   .   .   .    .
23021322   134  MT  78 3       .   .   .   .   .   .   .   .   .   .   .    .
23021322   135  MT  72 3       .   .   .   .   .   .   .   .   .   .   .    .
23021322   136  MT  72 2       .   .   .   .   .   .   .   .   .   .   .    .
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----------- NAME=GARCOCK POND   DATE=101283   SPECIES=GOLDEN SHINER -----------

 STATCO   ID  GEAR  TL  WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23021322 137   MT   60  1      .   .   .   .   .   .   .   .   .   .   .   .
23021322 138   MT   59  1      .   .   .   .   .   .   .   .   .   .   .   .
23021322 139   MT   58  1      .   .   .   .   .   .   .   .   .   .   .   .
23021322 140   MT   52  1      .   .   .   .   .   .   .   .   .   .   .   .
23021322 141   MT   56  1      .   .   .   .   .   .   .   .   .   .   .   .
23021322 142   MT   59  2      .   .   .   .   .   .   .   .   .   .   .   .
23021322 143   MT   56  1      .   .   .   .   .   .   .   .   .   .   .   .
23021322 144   MT   55  1      .   .   .   .   .   .   .   .   .   .   .   .
23021322 145   MT   60  1      .   .   .   .   .   .   .   .   .   .   .   .
23021322 146   MT   54  2      .   .   .   .   .   .   .   .   .   .   .   .
23021322 147   MT   60  2      .   .   .   .   .   .   .   .   .   .   .   .
23021322 148   MT   47  1      .   .   .   .   .   .   .   .   .   .   .   .
23021322 149   MT   51  1      .   .   .   .   .   .   .   .   .   .   .   .
23021322 150   MT   56  1      .   .   .   .   .   .   .   .   .   .   .   .
23021322 151   MT   47  1      .   .   .   .   .   .   .   .   .   .   .   .
23021322 152   MT   55  1      .   .   .   .   .   .   .   .   .   .   .   .
23021322 153   MT   54  1      .   .   .   .   .   .   .   .   .   .   .   .
23021322 154   MT   59  1      .   .   .   .   .   .   .   .   .   .   .   .
23021322 155   MT   50  1      .   .   .   .   .   .   .   .   .   .   .   .
23021322 156   MT   45  1      .   .   .   .   .   .   .   .   .   .   .   .
23021322 157   MT   52  1      .   .   .   .   .   .   .   .   .   .   .   .
23021322 158   MT   50  1      .   .   .   .   .   .   .   .   .   .   .   .
23021322 159   MT   45  1      .   .   .   .   .   .   .   .   .   .   .   .
23021322 160   MT   50  1      .   .   .   .   .   .   .   .   .   .   .   .
23021322 161   MT   49  1      .   .   .   .   .   .   .   .   .   .   .   .
23021322 162   MT   51  1      .   .   .   .   .   .   .   .   .   .   .   .
23021322 163   MT   67  2      .   .   .   .   .   .   .   .   .   .   .   .
23021322 164   MT   65  2      .   .   .   .   .   .   .   .   .   .   .   .
23021322 165   MT   68  2      .   .   .   .   .   .   .   .   .   .   .   .
23021322 166   MT   62  1      .   .   .   .   .   .   .   .   .   .   .   .
23021322 167   MT   65  2      .   .   .   .   .   .   .   .   .   .   .   .
23021322 168   MT   55  1      .   .   .   .   .   .   .   .   .   .   .   .
23021322 169   MT   57  1      .   .   .   .   .   .   .   .   .   .   .   .
23021322 170   MT   55  1      .   .   .   .   .   .   .   .   .   .   .   .
23021322 171   MT   60  1      .   .   .   .   .   .   .   .   .   .   .   .
23021322 172   MT   57  1      .   .   .   .   .   .   .   .   .   .   .   .
23021322 173   MT   60  1      .   .   .   .   .   .   .   .   .   .   .   .
23021322 174   MT   55  1      .   .   .   .   .   .   .   .   .   .   .   .
23021322 175   MT   50  1      .   .   .   .   .   .   .   .   .   .   .   .
23021322 176   MT   50  1      .   .   .   .   .   .   .   .   .   .   .   .
23021322 177   MT   50  1      .   .   .   .   .   .   .   .   .   .   .   .
23021322 178   MT   48  1      .   .   .   .   .   .   .   .   .   .   .   .
23021322 179   MT   55  1      .   .   .   .   .   .   .   .   .   .   .   .
23021322 180   MT   52  1      .   .   .   .   .   .   .   .   .   .   .   .
23021322 181   MT   49  1      .   .   .   .   .   .   .   .   .   .   .   .
23021322 182   MT   46  1      .   .   .   .   .   .   .   .   .   .   .   .
23021322 183   MT   59  1      .   .   .   .   .   .   .   .   .   .   .   .
23021322 184   MT   54  1      .   .   .   .   .   .   .   .   .   .   .   .
23021322 185   MT   60  1      .   .   .   .   .   .   .   .   .   .   .   .
23021322 186   MT   74  3      .   .   .   .   .   .   .   .   .   .   .   .
23021322 187   MT   60  2      .   .   .   .   .   .   .   .   .   .   .   .
23021322 188   MT   60  1      .   .   .   .   .   .   .   .   .   .   .   .
23021322 189   MT   50  1      .   .   .   .   .   .   .   .   .   .   .   .
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----------- NAME=GARCOCK POND   DATE=101283   SPECIES=GOLDEN SHINER -----------

STATCO     ID   GEAR  TL  WT  SEX  AGE  RAD  AN1  AN2  AN3  AN4  AN5  AN6  AN7  AN8  AN9  AN10

23021322  190    MT   52  1         .    .    .    .    .    .    .    .    .    .    .    .
23021322  191    MT   57  1         .    .    .    .    .    .    .    .    .    .    .    .
23021322  192    MT   56  1         .    .    .    .    .    .    .    .    .    .    .    .
23021322  193    MT   55  1         .    .    .    .    .    .    .    .    .    .    .    .
23021322  194    MT   51  1         .    .    .    .    .    .    .    .    .    .    .    .
23021322  195    MT   51  1         .    .    .    .    .    .    .    .    .    .    .    .
23021322  196    MT   51  1         .    .    .    .    .    .    .    .    .    .    .    .
23021322  197    MT   56  1         .    .    .    .    .    .    .    .    .    .    .    .
23021322  198    MT   57  1         .    .    .    .    .    .    .    .    .    .    .    .
23021322  199    MT   59  1         .    .    .    .    .    .    .    .    .    .    .    .
23021322  200    MT   50  1         .    .    .    .    .    .    .    .    .    .    .    .
23021322  201    MT   49  1         .    .    .    .    .    .    .    .    .    .    .    .
23021322  202    MT   50  1         .    .    .    .    .    .    .    .    .    .    .    .
23021322  203    MT   49  1         .    .    .    .    .    .    .    .    .    .    .    .
23021322  204    MT   55  1         .    .    .    .    .    .    .    .    .    .    .    .
23021322  205    MT   54  1         .    .    .    .    .    .    .    .    .    .    .    .
23021322  206    MT   71  4         .    .    .    .    .    .    .    .    .    .    .    .
23021322  207    MT   62  2         .    .    .    .    .    .    .    .    .    .    .    .
23021322  208    MT   55  1         .    .    .    .    .    .    .    .    .    .    .    .
23021322  209    MT   50  1         .    .    .    .    .    .    .    .    .    .    .    .
23021322  210    MT   64  2         .    .    .    .    .    .    .    .    .    .    .    .
23021322  211    MT   57  1         .    .    .    .    .    .    .    .    .    .    .    .
23021322  212    MT   66  2         .    .    .    .    .    .    .    .    .    .    .    .
23021322  213    MT   55  1         .    .    .    .    .    .    .    .    .    .    .    .
23021322  214    MT   52  1         .    .    .    .    .    .    .    .    .    .    .    .
23021322  215    MT   55  1         .    .    .    .    .    .    .    .    .    .    .    .
23021322  216    MT   59  1         .    .    .    .    .    .    .    .    .    .    .    .
23021322  217    MT   55  1         .    .    .    .    .    .    .    .    .    .    .    .
23021322  218    MT   64  2         .    .    .    .    .    .    .    .    .    .    .    .
23021322  219    MT   56  1         .    .    .    .    .    .    .    .    .    .    .    .
23021322  220    MT   70  3         .    .    .    .    .    .    .    .    .    .    .    .
23021322  221    MT   64  2         .    .    .    .    .    .    .    .    .    .    .    .
23021322  222    MT   62  2         .    .    .    .    .    .    .    .    .    .    .    .
23021322  223    MT   56  1         .    .    .    .    .    .    .    .    .    .    .    .
23021322  224    MT   63  2         .    .    .    .    .    .    .    .    .    .    .    .
23021322  225    MT   57  1         .    .    .    .    .    .    .    .    .    .    .    .
23021322  226    MT   56  1         .    .    .    .    .    .    .    .    .    .    .    .
23021322  227    MT   57  1         .    .    .    .    .    .    .    .    .    .    .    .
23021322  228    MT   55  1         .    .    .    .    .    .    .    .    .    .    .    .
23021322  229    MT   53  1         .    .    .    .    .    .    .    .    .    .    .    .
23021322  230    MT   54  1         .    .    .    .    .    .    .    .    .    .    .    .
23021322  231    MT   57  .         .    .    .    .    .    .    .    .    .    .    .    .
23021322  232    MT   67  2         .    .    .    .    .    .    .    .    .    .    .    .
23021322  233    MT   65  2         .    .    .    .    .    .    .    .    .    .    .    .
23021322  234    MT   60  2         .    .    .    .    .    .    .    .    .    .    .    .
23021322  235    MT   68  2         .    .    .    .    .    .    .    .    .    .    .    .
23021322  236    MT   64  2         .    .    .    .    .    .    .    .    .    .    .    .
23021322  237    MT   66  2         .    .    .    .    .    .    .    .    .    .    .    .
23021322  238    MT   66  2         .    .    .    .    .    .    .    .    .    .    .    .
23021322  239    MT   57  1         .    .    .    .    .    .    .    .    .    .    .    .
23021322  240    MT   65  2         .    .    .    .    .    .    .    .    .    .    .    .
23021322  241    MT   51  1         .    .    .    .    .    .    .    .    .    .    .    .
23021322  242    MT   53  1         .    .    .    .    .    .    .    .    .    .    .    .
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----------- NAME=GARCOCK POND   DATE=101283   SPECIES=GOLDEN SHINER -----------

  STATCO  ID  GEAR TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021322 243  MT  50 1          .   .   .   .   .   .   .   .   .   .   .   .
 23021322 244  MT  46 1          .   .   .   .   .   .   .   .   .   .   .   .
 23021322 245  MT  50 1          .   .   .   .   .   .   .   .   .   .   .   .
 23021322 246  MT  51 1          .   .   .   .   .   .   .   .   .   .   .   .
 23021322 247  MT  55 1          .   .   .   .   .   .   .   .   .   .   .   .
 23021322 248  MT  47 1          .   .   .   .   .   .   .   .   .   .   .   .
 23021322 249  MT  48 1          .   .   .   .   .   .   .   .   .   .   .   .
 23021322 250  MT  50 1          .   .   .   .   .   .   .   .   .   .   .   .
 23021322 251  MT  48 1          .   .   .   .   .   .   .   .   .   .   .   .
 23021322 252  MT  48 1          .   .   .   .   .   .   .   .   .   .   .   .
 23021322 253  MT  63 2          .   .   .   .   .   .   .   .   .   .   .   .
 23021322 254  MT  54 1          .   .   .   .   .   .   .   .   .   .   .   .
 23021322 255  MT  60 2          .   .   .   .   .   .   .   .   .   .   .   .
 23021322 256  MT  54 1          .   .   .   .   .   .   .   .   .   .   .   .
 23021322 257  MT  58 1          .   .   .   .   .   .   .   .   .   .   .   .
 23021322 258  MT  55 1          .   .   .   .   .   .   .   .   .   .   .   .
 23021322 259  MT  47 1          .   .   .   .   .   .   .   .   .   .   .   .
 23021322 260  MT  50 1          .   .   .   .   .   .   .   .   .   .   .   .
 23021322 261  MT  61 2          .   .   .   .   .   .   .   .   .   .   .   .
 23021322 262  MT  50 1          .   .   .   .   .   .   .   .   .   .   .   .
 23021322 263  MT  52 1          .   .   .   .   .   .   .   .   .   .   .   .
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------------- NAME=GREEN LAKE   DATE=71084   SPECIES=AMERICAN EEL -------------

  STATCO  ID GEAR TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23009365 .   TN  .  .       .   .   .   .   .   .   .   .   .   .   .   .
 23009365 .   MT  .  .       .   .   .   .   .   .   .   .   .   .   .   .
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-------------- NAME=GREEN LAKE   DATE=71084   SPECIES=BROOK TROUT -------------

 STATCO  ID GEAR TL   WT  SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23009365 1   GN  315 266        .   .   .   .   .   .   .   .   .   .   .   .
23009365 2   GN  117  14        .   .   .   .   .   .   .   .   .   .   .   .
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--------------- NAME=GREEN LAKE   DATE=71084   SPECIES=FALLFISH ---------------

  STATCO  ID GEAR TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23009365 .   GN  .  .       .   .   .   .   .   .   .   .   .   .   .   .
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------------- NAME=GREEN LAKE   DATE=71084   SPECIES=GOLDEN SHINER -------------

  STATCO  ID GEAR  TL  WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23009365  1  GN   89  7          .   .   .   .   .   .   .   .   .   .   .   .
 23009365  2  GN   79  5          .   .   .   .   .   .   .   .   .   .   .   .
 23009365  3  GN   71 11          .   .   .   .   .   .   .   .   .   .   .   .
 23009365  4  GN   81  6          .   .   .   .   .   .   .   .   .   .   .   .
 23009365  5  GN   68  3          .   .   .   .   .   .   .   .   .   .   .   .
 23009365  6  GN   79  5          .   .   .   .   .   .   .   .   .   .   .   .
 23009365  7  GN   79  5          .   .   .   .   .   .   .   .   .   .   .   .
 23009365  8  GN   66  3          .   .   .   .   .   .   .   .   .   .   .   .
 23009365  9  GN   74  4          .   .   .   .   .   .   .   .   .   .   .   .
 23009365 10  GN  102  4          .   .   .   .   .   .   .   .   .   .   .   .
 23009365 11  GN   91  7          .   .   .   .   .   .   .   .   .   .   .   .
 23009365 12  GN   81  5          .   .   .   .   .   .   .   .   .   .   .   .
 23009365 13  GN   81  5          .   .   .   .   .   .   .   .   .   .   .   .
 23009365 14  GN   69  3          .   .   .   .   .   .   .   .   .   .   .   .
 23009365 15  GN   71  4          .   .   .   .   .   .   .   .   .   .   .   .
 23009365  .  MT    .  .          .   .   .   .   .   .   .   .   .   .   .   .

----------- NAME=GREEN LAKE   DATE=71084   SPECIES=PUMPKINSEED SUNF ------------

  STATCO  ID GEAR TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23009365 .   TN   .  .        .   .   .   .   .   .   .   .   .   .   .   .
 23009365 1   GN  84 14        .   .   .   .   .   .   .   .   .   .   .   .
 23009365 2   GN  89 18        .   .   .   .   .   .   .   .   .   .   .   .
 23009365 3   GN  81  8        .   .   .   .   .   .   .   .   .   .   .   .
 23009365 .   MT   .  .        .   .   .   .   .   .   .   .   .   .   .   .

------------- NAME=GREEN LAKE   DATE=71084   SPECIES=WHITE SUCKER --------------

  STATCO  ID GEAR  TL   WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23009365 .   TN    .   .         .   .   .   .   .   .   .   .   .   .   .   .
 23009365 1   GN  417 700         .   .   .   .   .   .   .   .   .   .   .   .
 23009365 2   GN  168  58         .   .   .   .   .   .   .   .   .   .   .   .

------------- NAME=GREEN LAKE   DATE=80682   SPECIES=COMMON SHINER -------------

  STATCO  ID GEAR TL  WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23009365 1   GN  107 9   F   .   .   .   .   .   .   .   .   .   .   .   .
 23009365 1   GN  107 9   F   4   .   .   .   .   .   .   .   .   .   .   .
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----------- NAME=GREEN LAKE   DATE=80682   SPECIES=PUMPKINSEED SUNF ------------

  STATCO  ID GEAR  TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23009365   1   MT  61  3       1  62  18   .   .   .   .   .   .   .   .    .
23009365   2   MT  62  4       1  70  21   .   .   .   .   .   .   .   .    .
23009365   3   MT  62  4       1  73  18   .   .   .   .   .   .   .   .    .
23009365   4   MT  72  6       2  92  20  68   .   .   .   .   .   .   .    .
23009365   5   MT  66  4       1  75  19   .   .   .   .   .   .   .   .    .
23009365   6   MT  58  3       1  58  18   .   .   .   .   .   .   .   .    .
23009365   7   MT  60  3       1  62  19   .   .   .   .   .   .   .   .    .
23009365   8   MT  57  3       1  51  19   .   .   .   .   .   .   .   .    .
23009365   9   MT  58  3       1  60  18   .   .   .   .   .   .   .   .    .
23009365  10   MT  59  3       1  70  20   .   .   .   .   .   .   .   .    .
23009365  11   MT  60  3       1  67  21   .   .   .   .   .   .   .   .    .
23009365  12   MT  58  3       1  60  17   .   .   .   .   .   .   .   .    .
23009365  13   MT  56  3       1  65  17   .   .   .   .   .   .   .   .    .
23009365  14   MT  52  2       1  50  12   .   .   .   .   .   .   .   .    .
23009365  15   MT  60  3       1  61  19   .   .   .   .   .   .   .   .    .
23009365  16   MT  55  2       1  54  13   .   .   .   .   .   .   .   .    .
23009365  17   MT  57  3       1  63  14   .   .   .   .   .   .   .   .    .
23009365  18   MT  56  3       1  50  13   .   .   .   .   .   .   .   .    .
23009365  19   MT  62  4       1  59  14   .   .   .   .   .   .   .   .    .
23009365  20   MT  58  3       1  65  15   .   .   .   .   .   .   .   .    .
23009365  21   MT  59  3       1  73  19   .   .   .   .   .   .   .   .    .
23009365  22   MT  57  3       1  69  15   .   .   .   .   .   .   .   .    .
23009365  23   MT  59  3       1  62  17   .   .   .   .   .   .   .   .    .
23009365  24   MT  56  3       1  65  18   .   .   .   .   .   .   .   .    .
23009365  25   MT  52  2       1  58  19   .   .   .   .   .   .   .   .    .
23009365  26   MT  65  4       1  70  20   .   .   .   .   .   .   .   .    .
23009365  27   MT  60  3       1  54  15   .   .   .   .   .   .   .   .    .
23009365  28   MT  69  6       2  90  21  70   .   .   .   .   .   .   .    .
23009365  29   MT  54  3       1  61  16   .   .   .   .   .   .   .   .    .
23009365  30   MT  59  2       1  60  17   .   .   .   .   .   .   .   .    .
23009365  31   MT  61  4       .   .   .   .   .   .   .   .   .   .   .    .
23009365  32   MT  60  4       .   .   .   .   .   .   .   .   .   .   .    .
23009365  33   MT  64  4       .   .   .   .   .   .   .   .   .   .   .    .
23009365  34   MT  77  7       .   .   .   .   .   .   .   .   .   .   .    .
23009365  35   MT  69  5       .   .   .   .   .   .   .   .   .   .   .    .
23009365  36   MT  59  3       .   .   .   .   .   .   .   .   .   .   .    .
23009365  37   MT  62  3       .   .   .   .   .   .   .   .   .   .   .    .
23009365  38   MT  58  3       .   .   .   .   .   .   .   .   .   .   .    .
23009365  39   MT  47  2       .   .   .   .   .   .   .   .   .   .   .    .
23009365  40   MT  31  1       .   .   .   .   .   .   .   .   .   .   .    .
23009365  41   MT  32  1       .   .   .   .   .   .   .   .   .   .   .    .
23009365  42   MT  53  2       .   .   .   .   .   .   .   .   .   .   .    .
23009365  43   MT  64  4       .   .   .   .   .   .   .   .   .   .   .    .
23009365  44   MT  55  3       .   .   .   .   .   .   .   .   .   .   .    .
23009365  45   MT  52  2       .   .   .   .   .   .   .   .   .   .   .    .
23009365  46   MT  62  3       .   .   .   .   .   .   .   .   .   .   .    .
23009365  47   MT  61  4       .   .   .   .   .   .   .   .   .   .   .    .
23009365  48   MT  60  3       .   .   .   .   .   .   .   .   .   .   .    .
23009365  49   MT  58  3       .   .   .   .   .   .   .   .   .   .   .    .
23009365  50   MT  61  3       .   .   .   .   .   .   .   .   .   .   .    .
23009365  51   MT  61  4       .   .   .   .   .   .   .   .   .   .   .    .
23009365  52   MT  61  3       .   .   .   .   .   .   .   .   .   .   .    .
23009365  53   MT  55  3       .   .   .   .   .   .   .   .   .   .   .    .
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```
----------- NAME=GREEN LAKE   DATE=80682   SPECIES=PUMPKINSEED SUNF -----------

  STATCO   ID GEAR TL  WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23009365 54   MT   32 1        .    .   .   .   .   .   .   .   .   .   .    .
 23009365 55   MT   60 3        .    .   .   .   .   .   .   .   .   .   .    .
 23009365 56   MT   35 1        .    .   .   .   .   .   .   .   .   .   .    .
 23009365 57   MT   33 1        .    .   .   .   .   .   .   .   .   .   .    .
 23009365 58   MT   35 1        .    .   .   .   .   .   .   .   .   .   .    .
 23009365 59   MT   51 2        .    .   .   .   .   .   .   .   .   .   .    .
 23009365 60   MT   30 1        .    .   .   .   .   .   .   .   .   .   .    .
 23009365 61   MT   58 3        .    .   .   .   .   .   .   .   .   .   .    .
 23009365 62   MT   55 3        .    .   .   .   .   .   .   .   .   .   .    .
 23009365 63   MT   59 3        .    .   .   .   .   .   .   .   .   .   .    .
 23009365 64   MT   54 3        .    .   .   .   .   .   .   .   .   .   .    .
 23009365 65   MT   35 1        .    .   .   .   .   .   .   .   .   .   .    .

------------- NAME=GREEN LAKE   DATE=80682   SPECIES=WHITE SUCKER -------------

 STATCO    ID GEAR TL  WT   SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23009365   1  GN  359 428   M   4  207 61  119 187   .   .   .   .   .   .    .
23009365   2  GN  370 570   F   5  196 53  107 165 184   .   .   .   .   .    .
23009365   3  GN  330 407   M   4  175 58   98 154   .   .   .   .   .   .    .
23009365   4  GN  372 474   F   5  214 72  110 179 201   .   .   .   .   .    .
23009365   5  GN  340 424   M   4  180 61  116 159   .   .   .   .   .   .    .
23009365   6  GN  332 414   M   4  177 61  112 168   .   .   .   .   .   .    .
23009365   7  GN  330 381   M   4  217 77  114 187   .   .   .   .   .   .    .
23009365   8  GN  335 386   M   4  217 79  117 193   .   .   .   .   .   .    .
23009365   9  GN  350 443   F   4  175 56  105 161   .   .   .   .   .   .    .
23009365  10  GN  320 353   F   3  173 51  131   .   .   .   .   .   .   .    .
23009365  11  GN  360 501   F   4  194 79  133 179   .   .   .   .   .   .    .
23009365  12  GN  166  48   M   1   95 43    .   .   .   .   .   .   .   .    .
23009365  13  GN  335 419   M   4  186 77  109 161   .   .   .   .   .   .    .
23009365  14  GN    .   .       .    .  .    .   .   .   .   .   .   .   .    .
23009365  15  GN  352 439   M   4  172 42   32 142   .   .   .   .   .   .    .
23009365  16  GN  345 402   F   4  175 70  105 163   .   .   .   .   .   .    .
23009365  17  GN  360 458   F   4  219 77  131 205   .   .   .   .   .   .    .
23009365  18  GN  341 432   M   4  201 70  119 182   .   .   .   .   .   .    .
23009365  19  GN  362 442   M   5  194 58  105 163 188   .   .   .   .   .    .
23009365  20  GN  325 446   M   4  179 68  102 156   .   .   .   .   .   .    .
23009365  21  GN  365 461   M   4  197 67  103 161   .   .   .   .   .   .    .
23009365  22  GN  355 447   M   4  200 68  114 179   .   .   .   .   .   .    .
23009365  23  GN  370 464   F   4  179 53   98 163   .   .   .   .   .   .    .
23009365  24  GN  350 446   M   .    .  .    .   .   .   .   .   .   .   .    .
23009365  25  GN  352 450   M   .    .  .    .   .   .   .   .   .   .   .    .
23009365  26  GN  360 392   M   .    .  .    .   .   .   .   .   .   .   .    .
23009365  27  GN  342 434   M   .    .  .    .   .   .   .   .   .   .   .    .
23009365  28  GN  350 463   M   .    .  .    .   .   .   .   .   .   .   .    .
23009365  29  GN  350 409   M   .    .  .    .   .   .   .   .   .   .   .    .
23009365  30  GN  340 417   F   .    .  .    .   .   .   .   .   .   .   .    .
23009365  31  GN  349 466   M   .    .  .    .   .   .   .   .   .   .   .    .
23009365  32  GN  301 266   M   .    .  .    .   .   .   .   .   .   .   .    .
23009365  33  GN  305 299   M   .    .  .    .   .   .   .   .   .   .   .    .
23009365  34  GN  301 284   M   .    .  .    .   .   .   .   .   .   .   .    .
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----------------- NAME=HORSESHOE POND   DATE=100683   SPECIES= -----------------

  STATCO   ID GEAR TL  WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021360 1    MT  78 4        .   .   .   .   .   .   .   .   .   .   .   .
 23021360 2    MT  69 2        .   .   .   .   .   .   .   .   .   .   .   .
 23021360 3    MT  66 1        .   .   .   .   .   .   .   .   .   .   .   .
 23021360 4    MT  72 2        .   .   .   .   .   .   .   .   .   .   .   .

---------- NAME=HORSESHOE POND   DATE=100683   SPECIES=BLACKNOSE DACE ----------

  STATCO   ID GEAR TL  WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021360 1    MT  84 5        .   .   .   .   .   .   .   .   .   .   .   .
 23021360 2    MT  65 3        .   .   .   .   .   .   .   .   .   .   .   .

----------- NAME=HORSESHOE POND   DATE=100683   SPECIES=BROOK TROUT ------------

 STATCO   ID GEAR TL   WT   SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23021360 1    GN   349 328       3  48  13  33   .   .   .   .   .   .   .   .

---------- NAME=HORSESHOE POND   DATE=100683   SPECIES=BROWN BULLHEAD ----------

  STATCO   ID GEAR TL   WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021360   1  MT  123 19        .   .   .   .   .   .   .   .   .   .   .   .
 23021360   2  MT  102 11        .   .   .   .   .   .   .   .   .   .   .   .
 23021360   3  MT  128 20        .   .   .   .   .   .   .   .   .   .   .   .
 23021360   4  MT   97 10        .   .   .   .   .   .   .   .   .   .   .   .
 23021360   5  MT  123 20        .   .   .   .   .   .   .   .   .   .   .   .
 23021360   6  MT   46  1        .   .   .   .   .   .   .   .   .   .   .   .
 23021360   7  MT   72  4        .   .   .   .   .   .   .   .   .   .   .   .
 23021360   8  MT  124 20        .   .   .   .   .   .   .   .   .   .   .   .
 23021360   9  MT  136 25        .   .   .   .   .   .   .   .   .   .   .   .
 23021360  10  MT  117 15        .   .   .   .   .   .   .   .   .   .   .   .
 23021360  11  MT  136 29        .   .   .   .   .   .   .   .   .   .   .   .
 23021360  12  MT  108 11        .   .   .   .   .   .   .   .   .   .   .   .
 23021360  13  MT  129 25        .   .   .   .   .   .   .   .   .   .   .   .
 23021360  14  MT   89  7        .   .   .   .   .   .   .   .   .   .   .   .
 23021360  15  MT  120 16        .   .   .   .   .   .   .   .   .   .   .   .
 23021360  16  MT   88  7        .   .   .   .   .   .   .   .   .   .   .   .
 23021360  17  MT  125 26        .   .   .   .   .   .   .   .   .   .   .   .
 23021360  18  MT  102 11        .   .   .   .   .   .   .   .   .   .   .   .
 23021360  19  MT  151 42        .   .   .   .   .   .   .   .   .   .   .   .
 23021360  20  MT  122 19        .   .   .   .   .   .   .   .   .   .   .   .
 23021360  21  MT  134 26        .   .   .   .   .   .   .   .   .   .   .   .
 23021360  22  MT   85  6        .   .   .   .   .   .   .   .   .   .   .   .
 23021360  23  MT   54  1        .   .   .   .   .   .   .   .   .   .   .   .
 23021360  24  MT   56  1        .   .   .   .   .   .   .   .   .   .   .   .
 23021360  25  MT   85  5        .   .   .   .   .   .   .   .   .   .   .   .
 23021360  26  MT  109 12        .   .   .   .   .   .   .   .   .   .   .   .
 23021360  27  MT  118 15        .   .   .   .   .   .   .   .   .   .   .   .
 23021360  28  MT   77  4        .   .   .   .   .   .   .   .   .   .   .   .
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---------- NAME=HORSESHOE POND   DATE=100683   SPECIES=BROWN BULLHEAD ----------

  STATCO ID GEAR    TL  WT SEX AGE BAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23021360 29  MT     51   1       .   .   .   .   .   .   .   .   .   .   .    .
23021360 30  MT     63   2       .   .   .   .   .   .   .   .   .   .   .    .
23021360 31  MT     55   1       .   .   .   .   .   .   .   .   .   .   .    .
23021360 32  MT    117  15       .   .   .   .   .   .   .   .   .   .   .    .
23021360 33  MT    101  10       .   .   .   .   .   .   .   .   .   .   .    .
23021360 34  MT    121  18       .   .   .   .   .   .   .   .   .   .   .    .
23021360 35  MT    112  15       .   .   .   .   .   .   .   .   .   .   .    .
23021360 36  MT     55   1       .   .   .   .   .   .   .   .   .   .   .    .
23021360 37  MT     86   6       .   .   .   .   .   .   .   .   .   .   .    .
23021360 38  MT    100  10       .   .   .   .   .   .   .   .   .   .   .    .
23021360 39  MT     57   .       .   .   .   .   .   .   .   .   .   .   .    .
23021360 40  MT     92   8       .   .   .   .   .   .   .   .   .   .   .    .
23021360 41  MT    124  19       .   .   .   .   .   .   .   .   .   .   .    .
23021360 42  MT    119  18       .   .   .   .   .   .   .   .   .   .   .    .
23021360 43  MT     84   5       .   .   .   .   .   .   .   .   .   .   .    .
23021360 44  MT    128  23       .   .   .   .   .   .   .   .   .   .   .    .
23021360 45  MT    115  19       .   .   .   .   .   .   .   .   .   .   .    .
23021360 46  MT     57   1       .   .   .   .   .   .   .   .   .   .   .    .
23021360 47  MT     54   1       .   .   .   .   .   .   .   .   .   .   .    .
23021360 48  MT     54   1       .   .   .   .   .   .   .   .   .   .   .    .
23021360 49  MT     55   1       .   .   .   .   .   .   .   .   .   .   .    .
23021360 50  MT     53   1       .   .   .   .   .   .   .   .   .   .   .    .
23021360 51  MT    125  19       .   .   .   .   .   .   .   .   .   .   .    .
23021360 52  MT    127  23       .   .   .   .   .   .   .   .   .   .   .    .
23021360 53  MT    122  22       .   .   .   .   .   .   .   .   .   .   .    .
23021360 54  MT    108  14       .   .   .   .   .   .   .   .   .   .   .    .
23021360 55  MT    122  21       .   .   .   .   .   .   .   .   .   .   .    .
23021360 56  MT    113  16       .   .   .   .   .   .   .   .   .   .   .    .
23021360 57  MT    121  20       .   .   .   .   .   .   .   .   .   .   .    .
23021360 58  MT    137  29       .   .   .   .   .   .   .   .   .   .   .    .
23021360 59  MT     42   1       .   .   .   .   .   .   .   .   .   .   .    .
23021360 60  MT    125  21       .   .   .   .   .   .   .   .   .   .   .    .
23021360 61  MT    112  15       .   .   .   .   .   .   .   .   .   .   .    .
23021360 62  MT    112  15       .   .   .   .   .   .   .   .   .   .   .    .
23021360 63  MT     82   7       .   .   .   .   .   .   .   .   .   .   .    .
23021360 64  MT     89   7       .   .   .   .   .   .   .   .   .   .   .    .
23021360 65  MT     92   9       .   .   .   .   .   .   .   .   .   .   .    .
23021360 66  MT     53   1       .   .   .   .   .   .   .   .   .   .   .    .
23021360 67  MT     57   1       .   .   .   .   .   .   .   .   .   .   .    .
23021360 68  MT     52   1       .   .   .   .   .   .   .   .   .   .   .    .
23021360 69  MT     57   1       .   .   .   .   .   .   .   .   .   .   .    .
23021360 70  MT     63   3       .   .   .   .   .   .   .   .   .   .   .    .
23021360 71  MT     47   1       .   .   .   .   .   .   .   .   .   .   .    .
23021360 72  MT     57   2       .   .   .   .   .   .   .   .   .   .   .    .
23021360 73  MT    135  26       .   .   .   .   .   .   .   .   .   .   .    .
23021360 74  MT    138  30       .   .   .   .   .   .   .   .   .   .   .    .
23021360 75  MT    134  31       .   .   .   .   .   .   .   .   .   .   .    .
23021360 76  MT    121  21       .   .   .   .   .   .   .   .   .   .   .    .
23021360 77  MT     94  10       .   .   .   .   .   .   .   .   .   .   .    .
23021360 78  MT    123  20       .   .   .   .   .   .   .   .   .   .   .    .
23021360 79  GN    181  60       .   .   .   .   .   .   .   .   .   .   .    .
23021360 80  GN    148  37       .   .   .   .   .   .   .   .   .   .   .    .
23021360 81  GN    167  47       .   .   .   .   .   .   .   .   .   .   .    .
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---------- NAME=HORSESHOE POND    DATE=100683    SPECIES=BROWN BULLHEAD ----------

  STATCO   ID GEAR TL   WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021360 82   GN   162 46  F   .   .   .   .   .   .   .   .   .   .   .   .
 23021360 83   MT   187 76      .   .   .   .   .   .   .   .   .   .   .   .
 23021360 84   GN   154 42      .   .   .   .   .   .   .   .   .   .   .   .
 23021360 85   GN   131 23      .   .   .   .   .   .   .   .   .   .   .   .
 23021360 86   GN   150 38      .   .   .   .   .   .   .   .   .   .   .   .

---------- NAME=HORSESHOE POND    DATE=100683    SPECIES=GOLDEN SHINER -----------

  STATCO   ID GEAR TL   WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021360 1    GN   104 12      .   .   .   .   .   .   .   .   .   .   .   .
 23021360 2    GN    69  2      .   .   .   .   .   .   .   .   .   .   .   .
 23021360 3    MT    84  6      .   .   .   .   .   .   .   .   .   .   .   .
 23021360 4    MT    93  8      .   .   .   .   .   .   .   .   .   .   .   .

--------- NAME=HORSESHOE POND    DATE=100683    SPECIES=PUMPKINSEED SUNF ---------

  STATCO   ID GEAR TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021360 1    MT   91 9      .   .   .   .   .   .   .   .   .   .   .   .
 23021360 2    MT   63 3      .   .   .   .   .   .   .   .   .   .   .   .
 23021360 3    MT   61 2      .   .   .   .   .   .   .   .   .   .   .   .

----------- NAME=HORSESHOE POND    DATE=100683    SPECIES=WHITE SUCKER -----------

  STATCO   ID GEAR   TL   WT   SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021360   1   GN   1382 553   M    4   282 52  138 254   .   .   .   .   .   .   .
 23021360   2   GN    354 415   M    3   245 47  116   .   .   .   .   .   .   .   .
 23021360   3   GN    387 590   M    4   284 33  103 240   .   .   .   .   .   .   .
 23021360   4   GN    345 371   M    3   217 54  131   .   .   .   .   .   .   .   .
 23021360   5   GN    433 422   M    5   238 46   88 184 210   .   .   .   .   .   .
 23021360   6   GN    385 532   F    4   229 35   99 217   .   .   .   .   .   .   .
 23021360   7   GN    257 169   M    2   180 44  107   .   .   .   .   .   .   .   .
 23021360   8   GN    298 252   M    2   219 63  131   .   .   .   .   .   .   .   .
 23021360   9   GN    348 395   F    3   252 46  123   .   .   .   .   .   .   .   .
 23021360  10   GN    194  69        1   105 42    .   .   .   .   .   .   .   .   .
 23021360  11   GN    354 425   M    3   260 37  112   .   .   .   .   .   .   .   .
 23021360  12   GN    338 398   M    3   210 90  154   .   .   .   .   .   .   .   .
 23021360  13   GN    209  85        1   154 63    .   .   .   .   .   .   .   .   .
 23021360  14   GN    184  60        1   114 30    .   .   .   .   .   .   .   .   .
 23021360  15   GN    351 432        3   213 54  116   .   .   .   .   .   .   .   .
 23021360  16   GN    341 395   M    3   233 75  149   .   .   .   .   .   .   .   .
 23021360  17   GN    416 671   F    4   299 44  138 280   .   .   .   .   .   .   .
 23021360  18   GN    361 463   F    3   270 45  124   .   .   .   .   .   .   .   .
 23021360  19   GN    308 275   M    3   245 53  145   .   .   .   .   .   .   .   .
 23021360  20   GN    209  93        1   138 54    .   .   .   .   .   .   .   .   .
 23021360  21   GN    176  53        1   124 47    .   .   .   .   .   .   .   .   .
 23021360  22   GN    179  54        1   140 49    .   .   .   .   .   .   .   .   .
 23021360  23   GN    197  71        1   137 46    .   .   .   .   .   .   .   .   .
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----------- NAME=HORSESHOE POND   DATE=100683   SPECIES=WHITE SUCKER -----------

 STATCO  ID GEAR TL   WT  SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23021360 24  GN  387 503  F    .   .   .   .   .   .   .   .   .   .   .   .
23021360 25  GN  384 506  F    .   .   .   .   .   .   .   .   .   .   .   .
23021360 26  GN  364 425  F    .   .   .   .   .   .   .   .   .   .   .   .
23021360 27  GN  313 275  F    .   .   .   .   .   .   .   .   .   .   .   .
23021360 28  GN  311 274  M    .   .   .   .   .   .   .   .   .   .   .   .
23021360 29  GN  337 389  M    .   .   .   .   .   .   .   .   .   .   .   .
23021360 30  GN  362 462  M    .   .   .   .   .   .   .   .   .   .   .   .
23021360 31  GN  445 817  F    .   .   .   .   .   .   .   .   .   .   .   .
23021360 32  GN  340 461  F    .   .   .   .   .   .   .   .   .   .   .   .
23021360 33  GN  314 293  F    .   .   .   .   .   .   .   .   .   .   .   .
23021360 34  GN  351 441  M    .   .   .   .   .   .   .   .   .   .   .   .
23021360 35  GN  424 734  M    .   .   .   .   .   .   .   .   .   .   .   .
23021360 36  GN  397 534  F    .   .   .   .   .   .   .   .   .   .   .   .
23021360 37  GN  206  75       .   .   .   .   .   .   .   .   .   .   .   .
23021360 38  GN  164  46       .   .   .   .   .   .   .   .   .   .   .   .
23021360 39  GN  209  85       .   .   .   .   .   .   .   .   .   .   .   .
23021360 40  GN  370 475  F    .   .   .   .   .   .   .   .   .   .   .   .
23021360 41  GN  311 304  M    .   .   .   .   .   .   .   .   .   .   .   .
23021360 42  GN  371 500  M    .   .   .   .   .   .   .   .   .   .   .   .
23021360 43  GN  378 530  M    .   .   .   .   .   .   .   .   .   .   .   .
23021360 44  GN  372 494  M    .   .   .   .   .   .   .   .   .   .   .   .
23021360 45  GN  389 538  M    .   .   .   .   .   .   .   .   .   .   .   .
23021360 46  GN  357 442  F    .   .   .   .   .   .   .   .   .   .   .   .
23021360 47  GN  379 548  F    .   .   .   .   .   .   .   .   .   .   .   .
23021360 48  GN  331 340  M    .   .   .   .   .   .   .   .   .   .   .   .
23021360 49  GN  259 170       .   .   .   .   .   .   .   .   .   .   .   .
23021360 50  GN  335 382  M    .   .   .   .   .   .   .   .   .   .   .   .
23021360 51  GN  358 451  M    .   .   .   .   .   .   .   .   .   .   .   .
23021360 52  GN  120  18       .   .   .   .   .   .   .   .   .   .   .   .
23021360 53  GN  119   .       .   .   .   .   .   .   .   .   .   .   .   .
23021360 54  GN  177  54       .   .   .   .   .   .   .   .   .   .   .   .
23021360 55  GN  191  67       .   .   .   .   .   .   .   .   .   .   .   .
23021360 56  GN  187  65       .   .   .   .   .   .   .   .   .   .   .   .
23021360 57  GN  365 463  F    .   .   .   .   .   .   .   .   .   .   .   .
23021360 58  GN  347 422  M    .   .   .   .   .   .   .   .   .   .   .   .
23021360 59  GN  324 341  M    .   .   .   .   .   .   .   .   .   .   .   .
23021360 60  GN  372 454  F    .   .   .   .   .   .   .   .   .   .   .   .
23021360 61  GN  334 368  M    .   .   .   .   .   .   .   .   .   .   .   .
23021360 62  GN  183  61       .   .   .   .   .   .   .   .   .   .   .   .
23021360 63  GN  361 446  M    .   .   .   .   .   .   .   .   .   .   .   .
23021360 64  GN  195  71       .   .   .   .   .   .   .   .   .   .   .   .
23021360 65  GN  357 460  M    .   .   .   .   .   .   .   .   .   .   .   .
23021360 66  GN  342 342  F    .   .   .   .   .   .   .   .   .   .   .   .
23021360 67  GN  369 503  F    .   .   .   .   .   .   .   .   .   .   .   .
23021360 68  GN  303 263  F    .   .   .   .   .   .   .   .   .   .   .   .
23021360 69  GN  244 139  M    .   .   .   .   .   .   .   .   .   .   .   .
23021360 70  GN  307 279       .   .   .   .   .   .   .   .   .   .   .   .
23021360 71  GN  364 476  M    .   .   .   .   .   .   .   .   .   .   .   .
23021360 72  GN  300 256  F    .   .   .   .   .   .   .   .   .   .   .   .
23021360 73  GN  307 259  M    .   .   .   .   .   .   .   .   .   .   .   .
23021360 74  GN  203   .       .   .   .   .   .   .   .   .   .   .   .   .
23021360 75  GN  264 179  M    .   .   .   .   .   .   .   .   .   .   .   .
23021360 76  GN  189  68       .   .   .   .   .   .   .   .   .   .   .   .
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----------- NAME=HORSESHOE POND   DATE=100683   SPECIES=WHITE SUCKER ----------

 STATCO   ID GEAR TL    WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23021360 77  GN   197  73        .   .   .   .   .   .   .   .   .   .   .   .
23021360 78  GN   184  60        .   .   .   .   .   .   .   .   .   .   .   .
23021360 79  GN   204  79        .   .   .   .   .   .   .   .   .   .   .   .
23021360 80  GN   197  74        .   .   .   .   .   .   .   .   .   .   .   .
23021360 81  GN   317 277        .   .   .   .   .   .   .   .   .   .   .   .

------------ NAME=JOHNSTON POND   DATE=83083   SPECIES=BROOK TROUT ------------

 STATCO   ID GEAR TL    WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23021319  1  GN   187  54  F   2   36  15  27   .   .   .   .   .   .   .   .
23021319  2  GN   227 131  F   2   40  15  28   .   .   .   .   .   .   .   .
23021319  3  GN   162  43  F   2   32  14  25   .   .   .   .   .   .   .   .
23021319  4  GN   187  59  F   2   32  14  24   .   .   .   .   .   .   .   .
23021319  5  GN   104  14      1   24  14   .   .   .   .   .   .   .   .   .
23021319  6  GN   189  65  F   2   31  15  25   .   .   .   .   .   .   .   .
23021319  7  GN   181  59  M   2   31  14  25   .   .   .   .   .   .   .   .
23021319  8  GN   182  58  F   2   30  12  22   .   .   .   .   .   .   .   .
23021319  9  GN   185  69  F   2   29  12  25   .   .   .   .   .   .   .   .
23021319 10  GN   182  63  F   2   32  14  26   .   .   .   .   .   .   .   .
23021319 11  GN   163  47  M   2   33  16  26   .   .   .   .   .   .   .   .
23021319 12  GN   179  59  F   2   30  13  25   .   .   .   .   .   .   .   .
23021319 13  GN   104  13      1   25  15   .   .   .   .   .   .   .   .   .
23021319 14  GN   139  25  F   2   28  12  21   .   .   .   .   .   .   .   .
23021319 15  GN   131  21  M   1   25  15   .   .   .   .   .   .   .   .   .
23021319 16  GN   106  14      1   22  14   .   .   .   .   .   .   .   .   .
23021319 17  GN   121  16      1   26  16   .   .   .   .   .   .   .   .   .
23021319 18  GN   118  19  M   1   23  13   .   .   .   .   .   .   .   .   .
23021319 19  GN   167  48  F   2   35  16  28   .   .   .   .   .   .   .   .
23021319 20  GN   273 239  F   3   39  11  20   .   .   .   .   .   .   .   .
23021319 21  GN   119  18  M   1   27  14   .   .   .   .   .   .   .   .   .
23021319 22  GN   123  16  M   1   23  13   .   .   .   .   .   .   .   .   .
23021319 23  GN   169  47  M   2   31  13  23   .   .   .   .   .   .   .   .
23021319 24  GN   168  55  M   2   32  13  26   .   .   .   .   .   .   .   .
23021319 25  GN   156  42  M   2   30  14  23   .   .   .   .   .   .   .   .
23021319 26  GN   173  48  M   2   34  14  25   .   .   .   .   .   .   .   .
23021319 27  GN   187  72  F   2   30  15  24   .   .   .   .   .   .   .   .
23021319 28  GN   176  54  F   2   35  14  26   .   .   .   .   .   .   .   .
23021319 29  GN   179  52  M   2   36  14  29   .   .   .   .   .   .   .   .
23021319 30  GN   124  17  M   1   25  15   .   .   .   .   .   .   .   .   .
23021319 31  GN   172  53  M   2   33  15  27   .   .   .   .   .   .   .   .

----------- NAME=JOHNSTON POND   DATE=83083   SPECIES=GOLDEN SHINER -----------

  STATCO  ID GEAR TL  WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021319 1   GN  145 31  M   4  199 53  130 190  .   .   .   .   .   .   .
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------------- NAME=KNOX POND   DATE=80184   SPECIES=BROWN BULLHEAD -------------

  STATCO  ID GEAR TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23029363 .   GN  .  .       .   .   .   .   .   .   .   .   .   .   .   .

------------- NAME=KNOX POND   DATE=80184   SPECIES=COMMON SHINER -------------

  STATCO  ID GEAR TL  WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23029363 1   GN  172 .        .   .   .   .   .   .   .   .   .   .   .   .
 23029363 2   GN  197 .        .   .   .   .   .   .   .   .   .   .   .   .

------------ NAME=KNOX POND   DATE=80184   SPECIES=PUMPKINSEED SUNF ------------

  STATCO  ID GEAR TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23029363 .   TN   .  .        .   .   .   .   .   .   .   .   .   .   .   .
 23029363 1   MT  84  9        .   .   .   .   .   .   .   .   .   .   .   .
 23029363 2   MT  74  5        .   .   .   .   .   .   .   .   .   .   .   .
 23029363 3   MT  89 10        .   .   .   .   .   .   .   .   .   .   .   .
 23029363 4   MT  55  2        .   .   .   .   .   .   .   .   .   .   .   .
 23029363 5   MT  73  6        .   .   .   .   .   .   .   .   .   .   .   .

-------------- NAME=KNOX POND   DATE=80184   SPECIES=WHITE SUCKER -------------

 STATCO  ID GEAR TL  WT  SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23029363 1   GN  256 228       .   .   .   .   .   .   .   .   .   .   .   .
23029363 2   GN  268 227       .   .   .   .   .   .   .   .   .   .   .   .
23029363 3   GN  278 264       .   .   .   .   .   .   .   .   .   .   .   .
23029363 4   GN  222 124       .   .   .   .   .   .   .   .   .   .   .   .

------------- NAME=KNOX POND   DATE=81182   SPECIES=CHAIN PICKEREL -------------

 STATCO  ID GEAR TL  WT  SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23029363 1   GN  475 664  F   3  208 51  113   .   .   .   .   .   .   .   .
23029363 2   GN  191  32  F   1   65 47    .   .   .   .   .   .   .   .   .
23029363 3   GN  200  37  F   1   61 45    .   .   .   .   .   .   .   .   .
23029363 4   GN  535 860  F   4  195 46  106 182   .   .   .   .   .   .   .
23029363 5   GN  530 887  M   4  183 68  105 170   .   .   .   .   .   .   .
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------------ NAME=KNOX POND   DATE=81182   SPECIES=REDBREAST SUNFIS ------------

  STATCO   ID GEAR TL WT SEX AGE  RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23029363   1  GN  76  6  M   2    95  19  57   .   .   .   .   .   .   .    .
23029363   2  MT  70  5      2    75  14  48   .   .   .   .   .   .   .    .
23029363   3  MT  80  7      2   115  15  60   .   .   .   .   .   .   .    .
23029363   4  MT  75  6      2    95  16  56   .   .   .   .   .   .   .    .
23029363   5  MT  80  7      3    98  25  65   .   .   .   .   .   .   .    .
23029363   6  MT  76  6      2    90  20  51   .   .   .   .   .   .   .    .
23029363   7  MT  54  2      1    62  30   .   .   .   .   .   .   .   .    .
23029363   8  MT  60  3      1    60  22   .   .   .   .   .   .   .   .    .
23029363   9  MT  57  2      1    55  20   .   .   .   .   .   .   .   .    .
23029363  10  MT  49  1      1    52  20   .   .   .   .   .   .   .   .    .
23029363  11  MT  74  6      3    99  28  70   .   .   .   .   .   .   .    .
23029363  12  MT  47  2      1    55  18   .   .   .   .   .   .   .   .    .
23029363  13  MT  50  2      1    59  18   .   .   .   .   .   .   .   .    .
23029363  14  MT  55  2      1    53  23   .   .   .   .   .   .   .   .    .
23029363  15  MT  47  1      1    47  20   .   .   .   .   .   .   .   .    .
23029363  16  MT  48  2      1    60  27   .   .   .   .   .   .   .   .    .
23029363  17  MT  70  5      2    92  20  50   .   .   .   .   .   .   .    .
23029363  18  MT  51  2      1    57  22   .   .   .   .   .   .   .   .    .
23029363  19  MT  61  3      1    60  25   .   .   .   .   .   .   .   .    .
23029363  20  MT  48  2      .     .   .   .   .   .   .   .   .   .   .    .
23029363  21  MT  46  1      1    52  19   .   .   .   .   .   .   .   .    .
23029363  22  MT  50  2      1    56  21   .   .   .   .   .   .   .   .    .
23029363  23  MT  50  2      1    58  23   .   .   .   .   .   .   .   .    .
23029363  24  MT  50  2      1    60  24   .   .   .   .   .   .   .   .    .
23029363  25  MT  52  2      1    54  23   .   .   .   .   .   .   .   .    .
23029363  26  MT  60  3      1    70  30   .   .   .   .   .   .   .   .    .
23029363  27  MT  50  2      .     .   .   .   .   .   .   .   .   .   .    .
23029363  28  MT  45  1      .     .   .   .   .   .   .   .   .   .   .    .
23029363  29  MT  75  6      .     .   .   .   .   .   .   .   .   .   .    .
23029363  30  MT  50  2      .     .   .   .   .   .   .   .   .   .   .    .
23029363  31  MT  49  1      .     .   .   .   .   .   .   .   .   .   .    .
23029363  32  MT  50  2      .     .   .   .   .   .   .   .   .   .   .    .
23029363  33  MT  48  1      .     .   .   .   .   .   .   .   .   .   .    .
23029363  34  MT  59  3      .     .   .   .   .   .   .   .   .   .   .    .
23029363  35  MT  59  3      .     .   .   .   .   .   .   .   .   .   .    .
23029363  36  MT  59  3      .     .   .   .   .   .   .   .   .   .   .    .
23029363  37  MT  58  3      .     .   .   .   .   .   .   .   .   .   .    .
23029363  38  MT  50  2      .     .   .   .   .   .   .   .   .   .   .    .
23029363  39  MT  46  1      .     .   .   .   .   .   .   .   .   .   .    .
23029363  40  MT  52  2      .     .   .   .   .   .   .   .   .   .   .    .
23029363  41  MT  50  2      .     .   .   .   .   .   .   .   .   .   .    .
23029363  42  MT  55  2      .     .   .   .   .   .   .   .   .   .   .    .
23029363  43  MT  49  2      .     .   .   .   .   .   .   .   .   .   .    .
23029363  44  MT  46  1      .     .   .   .   .   .   .   .   .   .   .    .
23029363  45  MT  49  1      .     .   .   .   .   .   .   .   .   .   .    .
23029363  46  MT  55  2      .     .   .   .   .   .   .   .   .   .   .    .
23029363  47  MT  49  2      .     .   .   .   .   .   .   .   .   .   .    .
23029363  48  MT  45  1      .     .   .   .   .   .   .   .   .   .   .    .
23029363  49  MT  50  2      .     .   .   .   .   .   .   .   .   .   .    .
23029363  50  MT  46  1      .     .   .   .   .   .   .   .   .   .   .    .
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BEST COPY AVAILABLE

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-------------- NAME=KNOX POND   DATE=81182   SPECIES=WHITE SUCKER --------------

 STATCO   ID GEAR TL   WT  SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23029363 1   GN  212 109   M   2  165 45   99   .   .   .   .   .   .   .   .
23029363 2   GN  242 167   M   2  137 38   90   .   .   .   .   .   .   .   .
23029363 3   GN  174  61   M   1  105 59    .   .   .   .   .   .   .   .   .

---------- NAME=LITTLE FISHER POND   DATE=80483   SPECIES=BROOK TROUT ----------

 STATCO   ID GEAR TL    WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23021354 14  GN   180  59       2  33  11  20   .   .   .   .   .   .   .   .
23021354 15  GN   176  58       2  26   9  17   .   .   .   .   .   .   .   .
23021354 16  GN   160  45       2  35  14  22   .   .   .   .   .   .   .   .
23021354 17  GN   130  23       1  24  12   .   .   .   .   .   .   .   .   .
23021354 18  GN   160  42       2  32  13  23   .   .   .   .   .   .   .   .
23021354 19  GN   112  17       1  22  11   .   .   .   .   .   .   .   .   .
23021354  1  GN   221 107   M   2  34  14  24   .   .   .   .   .   .   .   .
23021354  2  GN   225 123       2  40  11  23   .   .   .   .   .   .   .   .
23021354  3  GN   256 156   M   3  40  12  24   .   .   .   .   .   .   .   .
23021354  4  GN   210 103   F   2  42  18  32   .   .   .   .   .   .   .   .
23021354  5  GN   195  82   M   2  30  12  21   .   .   .   .   .   .   .   .
23021354  6  GN   262 178   M   3  48  13  28   .   .   .   .   .   .   .   .
23021354  7  GN   198  87   F   2  28   9  18   .   .   .   .   .   .   .   .
23021354  8  GN   176  60       2  31  11  21   .   .   .   .   .   .   .   .
23021354  9  GN   175  53       2  31  11  22   .   .   .   .   .   .   .   .
23021354 10  GN   200  87   M   2  30  12  21   .   .   .   .   .   .   .   .
23021354 11  GN   181  62       2  34  12  25   .   .   .   .   .   .   .   .
23021354 12  GN   230 123   F   2  34  14  24   .   .   .   .   .   .   .   .
23021354 13  GN   156  33       1  25  12   .   .   .   .   .   .   .   .   .

-------- NAME=LITTLE FISHER POND   DATE=80483   SPECIES=BROWN BULLHEAD ---------

 STATCO   ID GEAR TL    WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23021354  1  GN   190  95        .   .   .   .   .   .   .   .   .   .   .   .
23021354  2  GN   205 127   F    .   .   .   .   .   .   .   .   .   .   .   .
23021354  3  GN   154  40        .   .   .   .   .   .   .   .   .   .   .   .
23021354  4  GN   200 107   F    .   .   .   .   .   .   .   .   .   .   .   .
23021354  5  GN   205 113   F    .   .   .   .   .   .   .   .   .   .   .   .
23021354  6  GN   192  89   F    .   .   .   .   .   .   .   .   .   .   .   .
23021354  7  GN   200 111   F    .   .   .   .   .   .   .   .   .   .   .   .
23021354  8  GN   200 103   F    .   .   .   .   .   .   .   .   .   .   .   .
23021354  9  GN   170  58        .   .   .   .   .   .   .   .   .   .   .   .
23021354 10  GN   210  90   F    .   .   .   .   .   .   .   .   .   .   .   .
23021354 11  GN   190  87   M    .   .   .   .   .   .   .   .   .   .   .   .
23021354 12  GN   200  99   F    .   .   .   .   .   .   .   .   .   .   .   .
23021354 13  GN   210 108   M    .   .   .   .   .   .   .   .   .   .   .   .
23021354 14  GN   200 101   M    .   .   .   .   .   .   .   .   .   .   .   .
23021354 15  GN   209 120   M    .   .   .   .   .   .   .   .   .   .   .   .
23021354 16  GN   190  87        .   .   .   .   .   .   .   .   .   .   .   .
23021354 17  GN   210 119   F    .   .   .   .   .   .   .   .   .   .   .   .
23021354 18  GN   195 110   M    .   .   .   .   .   .   .   .   .   .   .   .
23021354 19  GN   210 115   M    .   .   .   .   .   .   .   .   .   .   .   .
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-------- NAME=LITTLE FISHER POND   DATE=80483   SPECIES=BROWN BULLHEAD ---------

 STATCO   ID GEAR  TL   WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23021354 20  GN   198   98  P   .   .   .   .   .   .   .   .   .   .   .    .
23021354 21  GN   139   30      .   .   .   .   .   .   .   .   .   .   .    .
23021354 22  GN   198  100      .   .   .   .   .   .   .   .   .   .   .    .
23021354 23  GN   195   90      .   .   .   .   .   .   .   .   .   .   .    .
23021354 24  GN   172   56      .   .   .   .   .   .   .   .   .   .   .    .
23021354 25  GN   200  103      .   .   .   .   .   .   .   .   .   .   .    .
23021354 26  GN   205  103      .   .   .   .   .   .   .   .   .   .   .    .
23021354 27  GN   185   87      .   .   .   .   .   .   .   .   .   .   .    .
23021354 28  GN   205  119      .   .   .   .   .   .   .   .   .   .   .    .
23021354 29  GN   176  185      .   .   .   .   .   .   .   .   .   .   .    .
23021354 30  GN   190   84      .   .   .   .   .   .   .   .   .   .   .    .
23021354 31  GN   201  119      .   .   .   .   .   .   .   .   .   .   .    .
23021354 32  GN   200  105      .   .   .   .   .   .   .   .   .   .   .    .
23021354 33  GN   190   82      .   .   .   .   .   .   .   .   .   .   .    .
23021354 34  GN   185   76      .   .   .   .   .   .   .   .   .   .   .    .
23021354 35  GN   196   98      .   .   .   .   .   .   .   .   .   .   .    .
23021354 36  GN   195   96      .   .   .   .   .   .   .   .   .   .   .    .
23021354 37  GN   245  195      .   .   .   .   .   .   .   .   .   .   .    .
23021354 38  GN   145   37      .   .   .   .   .   .   .   .   .   .   .    .
23021354 39  GN   170   67      .   .   .   .   .   .   .   .   .   .   .    .
23021354 40  GN   165   56      .   .   .   .   .   .   .   .   .   .   .    .
23021354 41  GN   110   18      .   .   .   .   .   .   .   .   .   .   .    .
23021354 42  GN   165   64      .   .   .   .   .   .   .   .   .   .   .    .
23021354 43  GN   134   29      .   .   .   .   .   .   .   .   .   .   .    .
23021354 44  GN   110   18      .   .   .   .   .   .   .   .   .   .   .    .
23021354 45  GN   200  101      .   .   .   .   .   .   .   .   .   .   .    .
23021354 46  GN   135   35      .   .   .   .   .   .   .   .   .   .   .    .
23021354 47  GN   175   66      .   .   .   .   .   .   .   .   .   .   .    .
23021354 48  GN   138   32      .   .   .   .   .   .   .   .   .   .   .    .
23021354 49  GN   155   46      .   .   .   .   .   .   .   .   .   .   .    .
23021354 50  GN   205  101      .   .   .   .   .   .   .   .   .   .   .    .
23021354 51  GN   156   44      .   .   .   .   .   .   .   .   .   .   .    .
23021354 52  GN    99   11      .   .   .   .   .   .   .   .   .   .   .    .
23021354 53  GN   195   98      .   .   .   .   .   .   .   .   .   .   .    .
23021354 54  GN   176   69      .   .   .   .   .   .   .   .   .   .   .    .
23021354 55  GN   140   30      .   .   .   .   .   .   .   .   .   .   .    .
23021354 56  GN   103   13      .   .   .   .   .   .   .   .   .   .   .    .
23021354 57  GN   139   30      .   .   .   .   .   .   .   .   .   .   .    .
23021354 58  GN    92   10      .   .   .   .   .   .   .   .   .   .   .    .
23021354 59  GN   175   68      .   .   .   .   .   .   .   .   .   .   .    .
23021354 60  GN   205  110      .   .   .   .   .   .   .   .   .   .   .    .
23021354 61  GN   210  123      .   .   .   .   .   .   .   .   .   .   .    .
23021354 62  GN   211  125      .   .   .   .   .   .   .   .   .   .   .    .
23021354 63  GN   200  126      .   .   .   .   .   .   .   .   .   .   .    .
23021354 64  MT    98    .      .   .   .   .   .   .   .   .   .   .   .    .
23021354 65  MT   102    .      .   .   .   .   .   .   .   .   .   .   .    .
23021354 66  MT   116    .      .   .   .   .   .   .   .   .   .   .   .    .
23021354 67  MT   107    .      .   .   .   .   .   .   .   .   .   .   .    .
23021354 68  MT   113    .      .   .   .   .   .   .   .   .   .   .   .    .
23021354 69  MT   112    .      .   .   .   .   .   .   .   .   .   .   .    .
23021354 70  MT    91    .      .   .   .   .   .   .   .   .   .   .   .    .
23021354 16  MT    92    .      .   .   .   .   .   .   .   .   .   .   .    .
23021354 17  MT    82    .      .   .   .   .   .   .   .   .   .   .   .    .
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-------- NAME=LITTLE FISHER POND   DATE=80483   SPECIES=BROWN BULLHEAD ---------

  STATCO  ID GEAR TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021354 18  MT  91 .       .   .   .   .   .   .   .   .   .   .   .    .
 23021354 71  MT  33 .       .   .   .   .   .   .   .   .   .   .   .    .
 23021354 72  MT  40 .       .   .   .   .   .   .   .   .   .   .   .    .
 23021354 73  MT  39 .       .   .   .   .   .   .   .   .   .   .   .    .
 23021354 74  MT  38 .       .   .   .   .   .   .   .   .   .   .   .    .
 23021354 75  MT  44 .       .   .   .   .   .   .   .   .   .   .   .    .
 23021354 76  MT  42 .       .   .   .   .   .   .   .   .   .   .   .    .
 23021354 77  MT  40 .       .   .   .   .   .   .   .   .   .   .   .    .
 23021354 78  MT  41 .       .   .   .   .   .   .   .   .   .   .   .    .
 23021354 79  MT  36 .       .   .   .   .   .   .   .   .   .   .   .    .
 23021354 80  MT  44 .       .   .   .   .   .   .   .   .   .   .   .    .
 23021354 81  MT  40 .       .   .   .   .   .   .   .   .   .   .   .    .
 23021354 82  MT  39 .       .   .   .   .   .   .   .   .   .   .   .    .
 23021354 83  MT  41 .       .   .   .   .   .   .   .   .   .   .   .    .
 23021354 84  MT  42 .       .   .   .   .   .   .   .   .   .   .   .    .
 23021354 85  MT  38 .       .   .   .   .   .   .   .   .   .   .   .    .
 23021354 86  MT  41 .       .   .   .   .   .   .   .   .   .   .   .    .
 23021354 87  MT  42 .       .   .   .   .   .   .   .   .   .   .   .    .
 23021354 88  MT  32 .       .   .   .   .   .   .   .   .   .   .   .    .

---------- NAME=LITTLE FISHER POND   DATE=80483   SPECIES=CREEK CHUB -----------

  STATCO  ID GEAR TL  WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021354  1  GN  120 22       1  160 63   .   .   .   .   .   .   .   .   .    .
 23021354  2  GN   96 11       1  149 69   .   .   .   .   .   .   .   .   .    .
 23021354  3  GN   90 10       1  135 75   .   .   .   .   .   .   .   .   .    .
 23021354  4  GN  128 24       1  165 95   .   .   .   .   .   .   .   .   .    .
 23021354  5  GN  105 13       1   91 58   .   .   .   .   .   .   .   .   .    .
 23021354  5  GN  112 16       .    .  .   .   .   .   .   .   .   .   .   .    .
 23021354  6  GN  102 15       .    .  .   .   .   .   .   .   .   .   .   .    .
 23021354 10  GN  111 17       .    .  .   .   .   .   .   .   .   .   .   .    .
 23021354 11  GN  101 15       .    .  .   .   .   .   .   .   .   .   .   .    .
 23021354  9  GN  103 17       .    .  .   .   .   .   .   .   .   .   .   .    .
 23021354 12  GN  110 15       .    .  .   .   .   .   .   .   .   .   .   .    .
 23021354 13  MT  115  .       .    .  .   .   .   .   .   .   .   .   .   .    .
 23021354 14  MT   85  .       .    .  .   .   .   .   .   .   .   .   .   .    .
 23021354 15  MT   68  .       .    .  .   .   .   .   .   .   .   .   .   .    .
 23021354 19  MT  102  .       .    .  .   .   .   .   .   .   .   .   .   .    .
 23021354 20  MT   85  .       .    .  .   .   .   .   .   .   .   .   .   .    .

-------- NAME=LITTLE FISHER POND   DATE=80483   SPECIES=CYPRINIDAE SP. ---------

  STATCO  ID GEAR TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021354 1   MT  59 .       .   .   .   .   .   .   .   .   .   .   .    .
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BEST COPY AVAILABLE

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----------- NAME=LITTLE FISHER POND   DATE=80483   SPECIES=FALLFISH -----------

  STATCO  ID GEAR  TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021354 2   MT   75 .       .   .   .   .   .   .   .   .   .   .   .   .
 23021354 3   MT   66 .       .   .   .   .   .   .   .   .   .   .   .   .

-------- NAME=LITTLE FISHER POND   DATE=80483   SPECIES=FATHEAD MINNOW ---------

  STATCO  ID GEAR  TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021354 1   MT   56 .       .   .   .   .   .   .   .   .   .   .   .   .
 23021354 2   MT   56 .       .   .   .   .   .   .   .   .   .   .   .   .

-------- NAME=LITTLE FISHER POND   DATE=80483   SPECIES=FINESCALE DACE ---------

  STATCO  ID GEAR  TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021354  1  MT   55 .       .   .   .   .   .   .   .   .   .   .   .   .
 23021354  2  MT   61 .       .   .   .   .   .   .   .   .   .   .   .   .
 23021354  3  MT   64 .       .   .   .   .   .   .   .   .   .   .   .   .
 23021354  4  MT   61 .       .   .   .   .   .   .   .   .   .   .   .   .
 23021354  5  MT   60 .       .   .   .   .   .   .   .   .   .   .   .   .
 23021354  6  MT   57 .       .   .   .   .   .   .   .   .   .   .   .   .
 23021354  7  MT   62 .       .   .   .   .   .   .   .   .   .   .   .   .
 23021354  8  MT   70 .       .   .   .   .   .   .   .   .   .   .   .   .
 23021354  9  MT   76 .       .   .   .   .   .   .   .   .   .   .   .   .
 23021354 10  MT   71 .       .   .   .   .   .   .   .   .   .   .   .   .
 23021354 11  MT   59 .       .   .   .   .   .   .   .   .   .   .   .   .
 23021354 12  MT   53 .       .   .   .   .   .   .   .   .   .   .   .   .
 23021354 13  MT   62 .       .   .   .   .   .   .   .   .   .   .   .   .
 23021354 14  MT   60 .       .   .   .   .   .   .   .   .   .   .   .   .
 23021354 15  MT   62 .       .   .   .   .   .   .   .   .   .   .   .   .
 23021354 16  MT   60 .       .   .   .   .   .   .   .   .   .   .   .   .
 23021354 17  MT   56 .       .   .   .   .   .   .   .   .   .   .   .   .
 23021354 18  MT   56 .       .   .   .   .   .   .   .   .   .   .   .   .
 23021354 19  MT   57 .       .   .   .   .   .   .   .   .   .   .   .   .
 23021354 20  MT   61 .       .   .   .   .   .   .   .   .   .   .   .   .
 23021354 21  MT   62 .       .   .   .   .   .   .   .   .   .   .   .   .
 23021354 22  MT   65 .       .   .   .   .   .   .   .   .   .   .   .   .
 23021354 23  MT   55 .       .   .   .   .   .   .   .   .   .   .   .   .
 23021354 24  MT   54 .       .   .   .   .   .   .   .   .   .   .   .   .
 23021354 25  MT   61 .       .   .   .   .   .   .   .   .   .   .   .   .
 23021354 26  MT   65 .       .   .   .   .   .   .   .   .   .   .   .   .
 23021354 27  MT   61 .       .   .   .   .   .   .   .   .   .   .   .   .
 23021354 28  MT   58 .       .   .   .   .   .   .   .   .   .   .   .   .
 23021354 29  MT   58 .       .   .   .   .   .   .   .   .   .   .   .   .
 23021354 30  MT   54 .       .   .   .   .   .   .   .   .   .   .   .   .
 23021354 31  MT   66 .       .   .   .   .   .   .   .   .   .   .   .   .
 23021354 32  MT   64 .       .   .   .   .   .   .   .   .   .   .   .   .
 23021354 33  MT   59 .       .   .   .   .   .   .   .   .   .   .   .   .
 23021354 34  MT   64 .       .   .   .   .   .   .   .   .   .   .   .   .
 23021354 35  MT   63 .       .   .   .   .   .   .   .   .   .   .   .   .
 23021354 36  MT   66 .       .   .   .   .   .   .   .   .   .   .   .   .
 23021354 37  MT   61 .       .   .   .   .   .   .   .   .   .   .   .   .
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-------- NAME=LITTLE FISHER POND   DATE=80483   SPECIES=FINESCALE DACE ---------

  STATCO   ID GEAR TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23021354   38  MT  65  .       .   .   .   .   .   .   .   .   .   .   .   .
23021354   39  MT  65  .       .   .   .   .   .   .   .   .   .   .   .   .
23021354   40  MT  56  .       .   .   .   .   .   .   .   .   .   .   .   .
23021354   41  MT  59  .       .   .   .   .   .   .   .   .   .   .   .   .
23021354   42  MT  59  .       .   .   .   .   .   .   .   .   .   .   .   .
23021354   43  MT  53  .       .   .   .   .   .   .   .   .   .   .   .   .
23021354   44  MT  62  .       .   .   .   .   .   .   .   .   .   .   .   .
23021354   45  MT  62  .       .   .   .   .   .   .   .   .   .   .   .   .
23021354   46  MT  66  .       .   .   .   .   .   .   .   .   .   .   .   .
23021354   47  MT  62  .       .   .   .   .   .   .   .   .   .   .   .   .
23021354   48  MT  59  .       .   .   .   .   .   .   .   .   .   .   .   .
23021354   49  MT  66  .       .   .   .   .   .   .   .   .   .   .   .   .
23021354   50  MT  59  .       .   .   .   .   .   .   .   .   .   .   .   .
23021354   51  MT  59  .       .   .   .   .   .   .   .   .   .   .   .   .
23021354   53  MT  62  .       .   .   .   .   .   .   .   .   .   .   .   .
23021354   54  MT  55  .       .   .   .   .   .   .   .   .   .   .   .   .
23021354   55  MT  66  .       .   .   .   .   .   .   .   .   .   .   .   .
23021354   56  MT  62  .       .   .   .   .   .   .   .   .   .   .   .   .
23021354   57  MT  61  .       .   .   .   .   .   .   .   .   .   .   .   .
23021354   58  MT  55  .       .   .   .   .   .   .   .   .   .   .   .   .
23021354   59  MT  51  .       .   .   .   .   .   .   .   .   .   .   .   .
23021354   60  MT  58  .       .   .   .   .   .   .   .   .   .   .   .   .
23021354   61  MT  59  .       .   .   .   .   .   .   .   .   .   .   .   .
23021354    1  MT  90  .       .   .   .   .   .   .   .   .   .   .   .   .
23021354   52  MT  60  .       .   .   .   .   .   .   .   .   .   .   .   .


------- NAME=LITTLE FISHER POND   DATE=80483   SPECIES=NO.REDBELLY DACE --------

  STATCO   ID GEAR TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23021354    1  MT  46  .       .   .   .   .   .   .   .   .   .   .   .   .
23021354    2  MT  51  .       .   .   .   .   .   .   .   .   .   .   .   .
23021354    3  MT  51  .       .   .   .   .   .   .   .   .   .   .   .   .
23021354    4  MT  90  .       .   .   .   .   .   .   .   .   .   .   .   .
23021354    5  MT  52  .       .   .   .   .   .   .   .   .   .   .   .   .
23021354    6  MT  72  .       .   .   .   .   .   .   .   .   .   .   .   .
23021354    7  MT  99  .       .   .   .   .   .   .   .   .   .   .   .   .
23021354    8  MT  91  .       .   .   .   .   .   .   .   .   .   .   .   .
23021354    9  MT  45  .       .   .   .   .   .   .   .   .   .   .   .   .
23021354   10  MT  57  .       .   .   .   .   .   .   .   .   .   .   .   .
23021354   11  MT  45  .       .   .   .   .   .   .   .   .   .   .   .   .
23021354   12  MT  50  .       .   .   .   .   .   .   .   .   .   .   .   .
23021354   13  MT  65  .       .   .   .   .   .   .   .   .   .   .   .   .
23021354   14  MT  56  .       .   .   .   .   .   .   .   .   .   .   .   .
23021354   15  MT  52  .       .   .   .   .   .   .   .   .   .   .   .   .
23021354   16  MT  51  .       .   .   .   .   .   .   .   .   .   .   .   .
23021354   17  MT  85  .       .   .   .   .   .   .   .   .   .   .   .   .
23021354   18  MT  61  .       .   .   .   .   .   .   .   .   .   .   .   .
23021354   19  MT  62  .       .   .   .   .   .   .   .   .   .   .   .   .
23021354   20  MT  55  .       .   .   .   .   .   .   .   .   .   .   .   .
23021354   21  MT  49  .       .   .   .   .   .   .   .   .   .   .   .   .
23021354   22  MT  87  .       .   .   .   .   .   .   .   .   .   .   .   .
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------- NAME=LITTLE FISHER POND   DATE=80483   SPECIES=NO.REDBELLY DACE --------

 STATCO   ID GEAR  TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23021354 23   MT   42 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 24   MT   57 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 25   MT   51 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 26   MT   77 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 27   MT   57 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 28   MT   50 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 29   MT   50 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 30   MT   51 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 31   MT   46 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 32   MT   41 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 33   MT   60 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 34   MT   52 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 35   MT   51 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 36   MT   43 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 37   MT   50 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 38   MT   52 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 39   MT   59 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 40   MT   74 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 41   MT   56 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 42   MT   50 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 43   MT   49 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 44   MT   49 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 45   MT   50 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 46   MT   45 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 47   MT   46 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 48   MT   45 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 49   MT   70 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 50   MT   51 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 51   MT   51 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 52   MT   44 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 53   MT   49 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 54   MT   55 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 55   MT   56 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 56   MT   57 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 57   MT   46 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 58   MT   45 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 59   MT   57 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 60   MT   79 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 61   MT   50 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 62   MT   50 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 63   MT   45 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 64   MT   45 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 65   MT   50 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 66   MT   52 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 67   MT   45 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 68   MT   57 .        .   .   .   .   .   .   .   .   .   .   .   .
23021354 69   MT   51 .        .   .   .   .   .   .   .   .   .   .   .   .
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---------- NAME=LITTLE FISHER POND   DATE=80483   SPECIES=WHITE SUCKER ----------

  STATCO ID GEAR   TL   WT SEX AGE  RAD AN1  AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23021354  1   GN  245  141   M   2  167  60  121   .   .   .   .   .   .   .    .
23021354  2   GN  289  226   F   4  188  45  109 160   .   .   .   .   .   .    .
23021354  3   GN  119   18       1   55  27    .   .   .   .   .   .   .   .    .
23021354  4   GN  288  247   M   4  210  35   67 158   .   .   .   .   .   .    .
23021354  5   GN  275  205   F   3  171  40   95 171   .   .   .   .   .   .    .
23021354  6   GN  216  109   M   2  163  83  139   .   .   .   .   .   .   .    .
23021354  7   GN  285  194   F   3  168  72  122   .   .   .   .   .   .   .    .
23021354  8   GN  247  146       2  132  30   90   .   .   .   .   .   .   .    .
23021354  9   GN  231  120   M   2  140  35   85   .   .   .   .   .   .   .    .
23021354 10   GN  225    .       2  157  63  118   .   .   .   .   .   .   .    .
23021354 11   GN  242  139       2  135  50  119   .   .   .   .   .   .   .    .
23021354 12   GN  277  205   M   3  173  50  105   .   .   .   .   .   .   .    .
23021354 13   GN  222    .       2  162  34   89   .   .   .   .   .   .   .    .
23021354 14   GN  260  170   M   2  166  49  105   .   .   .   .   .   .   .    .
23021354 15   GN  255  157   M   2  132  38  120   .   .   .   .   .   .   .    .
23021354 16   GN  250  144       2  143  58  117   .   .   .   .   .   .   .    .
23021354 17   GN  235  105   M   2  153  43  106   .   .   .   .   .   .   .    .
23021354 18   GN  240  134   F   2  165  47  110   .   .   .   .   .   .   .    .
23021354 19   GN  241  137   F   3  185  50  102   .   .   .   .   .   .   .    .
23021354 20   GN  255  147   F   2  142  54  105   .   .   .   .   .   .   .    .
23021354 21   GN  140   27       1   63  33    .   .   .   .   .   .   .   .    .
23021354 21   GN  259  166   F   .    .   .    .   .   .   .   .   .   .   .    .
23021354 22   GN  230  134   M   .    .   .    .   .   .   .   .   .   .   .    .
23021354 23   GN  249  154   M   .    .   .    .   .   .   .   .   .   .   .    .
23021354 24   GN  243  129   M   .    .   .    .   .   .   .   .   .   .   .    .
23021354 25   GN  250  160   M   .    .   .    .   .   .   .   .   .   .   .    .
23021354 26   GN  235  128       .    .   .    .   .   .   .   .   .   .   .    .
23021354 27   GN  265  179   F   .    .   .    .   .   .   .   .   .   .   .    .
23021354 28   GN  248    .       .    .   .    .   .   .   .   .   .   .   .    .
23021354 29   GN  245  145       .    .   .    .   .   .   .   .   .   .   .    .
23021354 30   GN  250  152   M   .    .   .    .   .   .   .   .   .   .   .    .
23021354 31   GN  232  110       .    .   .    .   .   .   .   .   .   .   .    .
23021354 32   GN  235  132   M   .    .   .    .   .   .   .   .   .   .   .    .
23021354 33   GN  300  243   F   .    .   .    .   .   .   .   .   .   .   .    .
23021354 34   GN  266  174   M   .    .   .    .   .   .   .   .   .   .   .    .
23021354 35   GN  276  195   F   .    .   .    .   .   .   .   .   .   .   .    .
23021354 36   GN  255  157   F   .    .   .    .   .   .   .   .   .   .   .    .
23021354 37   GN  240  126       .    .   .    .   .   .   .   .   .   .   .    .
23021354 38   GN  256  154   F   .    .   .    .   .   .   .   .   .   .   .    .
23021354 39   GN  310  287   M   .    .   .    .   .   .   .   .   .   .   .    .
23021354 40   GN  229  107   M   .    .   .    .   .   .   .   .   .   .   .    .
23021354 41   GN  262  183   F   .    .   .    .   .   .   .   .   .   .   .    .
23021354 42   GN  260  153   F   .    .   .    .   .   .   .   .   .   .   .    .
23021354 43   GN  179   57       .    .   .    .   .   .   .   .   .   .   .    .
23021354 44   GN  179   47       .    .   .    .   .   .   .   .   .   .   .    .
23021354 45   GN  185    .       .    .   .    .   .   .   .   .   .   .   .    .
23021354 46   GN  120    .       .    .   .    .   .   .   .   .   .   .   .    .
23021354 47   GN  186   56       .    .   .    .   .   .   .   .   .   .   .    .
23021354 48   GN  182    .       .    .   .    .   .   .   .   .   .   .   .    .
23021354 49   GN  180    .       .    .   .    .   .   .   .   .   .   .   .    .
23021354 50   GN  185   56       .    .   .    .   .   .   .   .   .   .   .    .
23021354 51   GN  182   57       .    .   .    .   .   .   .   .   .   .   .    .
23021354 52   GN  187    .       .    .   .    .   .   .   .   .   .   .   .    .
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--------- NAME=LITTLE FISHER POND    DATE=80483    SPECIES=WHITE SUCKER ----------

  STATCO  ID GEAR  TL   WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021354 53  GN  175   46       .   .   .   .   .   .   .   .   .   .   .    .
 23021354 54  GN  166   42       .   .   .   .   .   .   .   .   .   .   .    .
 23021354 55  GN  178   48       .   .   .   .   .   .   .   .   .   .   .    .
 23021354 56  GN  176   48       .   .   .   .   .   .   .   .   .   .   .    .
 23021354 57  GN  180   51       .   .   .   .   .   .   .   .   .   .   .    .
 23021354 58  GN  169    .       .   .   .   .   .   .   .   .   .   .   .    .
 23021354 59  GN  178    .       .   .   .   .   .   .   .   .   .   .   .    .
 23021354 60  GN  191   61       .   .   .   .   .   .   .   .   .   .   .    .
 23021354 61  GN  245    .       .   .   .   .   .   .   .   .   .   .   .    .
 23021354 62  GN  270  179  M    .   .   .   .   .   .   .   .   .   .   .    .
 23021354 63  GN  250  149  F    .   .   .   .   .   .   .   .   .   .   .    .
 23021354 64  GN  188   60       .   .   .   .   .   .   .   .   .   .   .    .
 23021354 65  GN  170   47       .   .   .   .   .   .   .   .   .   .   .    .
 23021354 66  GN  176    .       .   .   .   .   .   .   .   .   .   .   .    .
 23021354 67  GN  180    .       .   .   .   .   .   .   .   .   .   .   .    .
 23021354 68  GN  189   68       .   .   .   .   .   .   .   .   .   .   .    .
 23021354 69  GN  176   50       .   .   .   .   .   .   .   .   .   .   .    .
 23021354 70  GN  245    .       .   .   .   .   .   .   .   .   .   .   .    .
 23021354 71  GN  165   45       .   .   .   .   .   .   .   .   .   .   .    .
 23021354 72  GN  176   54       .   .   .   .   .   .   .   .   .   .   .    .
 23021354 73  GN  112   15       .   .   .   .   .   .   .   .   .   .   .    .
 23021354 74  GN  115    .       .   .   .   .   .   .   .   .   .   .   .    .
 23021354 75  GN  192   73       .   .   .   .   .   .   .   .   .   .   .    .
 23021354 76  GN  117   21       .   .   .   .   .   .   .   .   .   .   .    .

----------- NAME=LITTLE HURD POND    DATE=72683    SPECIES=BROOK TROUT -----------

  STATCO  ID GEAR  TL   WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021352 1   GN  213   89  F    2  33  14  25   .   .   .   .   .   .   .    .
 23021352 2   GN  129   19       1  22  11   .   .   .   .   .   .   .   .    .
 23021352 3   GN  173   54  M    2  28  10  21   .   .   .   .   .   .   .    .
 23021352 4   GN  271  190  M    3  37  16  25   .   .   .   .   .   .   .    .
 23021352 5   GN  218  124  M    2  34  15  30   .   .   .   .   .   .   .    .
 23021352 6   GN  182   56  M    2  31  14  26   .   .   .   .   .   .   .    .
 23021352 7   GN  133   21       1  24  13   .   .   .   .   .   .   .   .    .

--------- NAME=LITTLE HURD POND    DATE=72683    SPECIES=CENTRARCHID SP. ---------

   STATCO  ID GEAR TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

  23021352 1   MT  48 1        .   .   .   .   .   .   .   .   .   .   .   .
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---------- NAME=LITTLE HURD POND   DATE=72683   SPECIES=COMMON SHINER ----------

  STATCO  ID GEAR  TL  WT SEX AGE RAD AN1  AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021352  1  GN  117 19        2  200 90   155  .   .   .   .   .   .   .   .
 23021352  2  GN  107 15        2  165 73   144  .   .   .   .   .   .   .   .
 23021352  3  GN  100 13        2  172 74   137  .   .   .   .   .   .   .   .
 23021352  4  GN  110 13        2  168 92   147  .   .   .   .   .   .   .   .
 23021352  5  GN  111 15        2  165 68   123  .   .   .   .   .   .   .   .
 23021352  6  GN  115 17        2  209 97   161  .   .   .   .   .   .   .   .
 23021352  7  GN  106 13        2  173 79   133  .   .   .   .   .   .   .   .
 23021352  8  GN  114 16        2  190 93   146  .   .   .   .   .   .   .   .
 23021352  9  GN  111 14        2  196 74   149  .   .   .   .   .   .   .   .
 23021352 10  GN  112 14        2  207 86   159  .   .   .   .   .   .   .   .
 23021352 11  GN  107 12        2  156 62   117  .   .   .   .   .   .   .   .
 23021352 12  GN  103 13        2  151 70   107  .   .   .   .   .   .   .   .
 23021352 13  GN  107 12        2  205 90   165  .   .   .   .   .   .   .   .
 23021352 14  GN  117 18        2  175 89   149  .   .   .   .   .   .   .   .
 23021352 15  GN  106 12        2  175 75   146  .   .   .   .   .   .   .   .
 23021352 16  GN  108 13        2  174 85   141  .   .   .   .   .   .   .   .
 23021352 17  GN  114 13        2  186 96   170  .   .   .   .   .   .   .   .
 23021352 18  GN   96 11        2  184 91   144  .   .   .   .   .   .   .   .
 23021352 19  GN  107 13        2  190 74   150  .   .   .   .   .   .   .   .
 23021352 20  GN  112 16        2  202 77   157  .   .   .   .   .   .   .   .
 23021352 21  GN  102 10        .    .  .     .  .   .   .   .   .   .   .   .
 23021352 22  MT  123 20        .    .  .     .  .   .   .   .   .   .   .   .
 23021352 23  MT  101 11        .    .  .     .  .   .   .   .   .   .   .   .
 23021352 24  MT  120 18        .    .  .     .  .   .   .   .   .   .   .   .
 23021352 25  MT  113 17        .    .  .     .  .   .   .   .   .   .   .   .
 23021352 26  MT  113 19        .    .  .     .  .   .   .   .   .   .   .   .
 23021352 27  MT  117 17        .    .  .     .  .   .   .   .   .   .   .   .
 23021352 28  MT  101 11        .    .  .     .  .   .   .   .   .   .   .   .
 23021352 29  MT  115 15        .    .  .     .  .   .   .   .   .   .   .   .
 23021352 30  MT  113 17        .    .  .     .  .   .   .   .   .   .   .   .
 23021352 31  MT   97 12        .    .  .     .  .   .   .   .   .   .   .   .
 23021352 32  MT  105 13        .    .  .     .  .   .   .   .   .   .   .   .
 23021352 33  MT  102 13        .    .  .     .  .   .   .   .   .   .   .   .
 23021352 34  MT  122 22        .    .  .     .  .   .   .   .   .   .   .   .
 23021352 35  MT   88  8        .    .  .     .  .   .   .   .   .   .   .   .
 23021352 36  MT  110 14        .    .  .     .  .   .   .   .   .   .   .   .
 23021352 37  MT   97 10        .    .  .     .  .   .   .   .   .   .   .   .
 23021352 38  MT  107 14        .    .  .     .  .   .   .   .   .   .   .   .
 23021352 39  MT   87  6        .    .  .     .  .   .   .   .   .   .   .   .
 23021352 40  MT  119 20        .    .  .     .  .   .   .   .   .   .   .   .
 23021352 41  MT  105 13        .    .  .     .  .   .   .   .   .   .   .   .
 23021352 42  MT  105 13        .    .  .     .  .   .   .   .   .   .   .   .
 23021352 43  MT   97  9        .    .  .     .  .   .   .   .   .   .   .   .
 23021352 44  MT  107 15        .    .  .     .  .   .   .   .   .   .   .   .
 23021352 45  MT   91  8        .    .  .     .  .   .   .   .   .   .   .   .
 23021352 46  MT   99 11        .    .  .     .  .   .   .   .   .   .   .   .
 23021352 47  MT  100  9        .    .  .     .  .   .   .   .   .   .   .   .
 23021352 48  MT   93  8        .    .  .     .  .   .   .   .   .   .   .   .
 23021352 49  MT  111 14        .    .  .     .  .   .   .   .   .   .   .   .
 23021352 50  MT   93  8        .    .  .     .  .   .   .   .   .   .   .   .
 23021352 51  MT   97 10        .    .  .     .  .   .   .   .   .   .   .   .
 23021352 52  MT  105 12        .    .  .     .  .   .   .   .   .   .   .   .
 23021352 53  MT   97 11        .    .  .     .  .   .   .   .   .   .   .   .
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---------- NAME=LITTLE HURD POND   DATE=72683   SPECIES=COMMON SHINER ----------

  STATCO   ID GEAR   TL  WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021352 54  MT     97   8       .   .   .   .   .   .   .   .   .   .   .    .
 23021352 55  MT    117  17       .   .   .   .   .   .   .   .   .   .   .    .
 23021352 56  MT    109  14       .   .   .   .   .   .   .   .   .   .   .    .
 23021352 57  MT     86   6       .   .   .   .   .   .   .   .   .   .   .    .
 23021352 58  MT     92   9       .   .   .   .   .   .   .   .   .   .   .    .
 23021352 59  MT    116  18       .   .   .   .   .   .   .   .   .   .   .    .
 23021352 60  MT     74   4       .   .   .   .   .   .   .   .   .   .   .    .
 23021352 61  MT     98   9       .   .   .   .   .   .   .   .   .   .   .    .
 23021352 62  MT    107  13       .   .   .   .   .   .   .   .   .   .   .    .
 23021352 63  MT    109  14       .   .   .   .   .   .   .   .   .   .   .    .
 23021352 64  MT     97   9       .   .   .   .   .   .   .   .   .   .   .    .
 23021352 65  MT    112  17       .   .   .   .   .   .   .   .   .   .   .    .
 23021352 66  MT    100  12       .   .   .   .   .   .   .   .   .   .   .    .
 23021352 67  MT     97  10       .   .   .   .   .   .   .   .   .   .   .    .
 23021352 68  MT    107  14       .   .   .   .   .   .   .   .   .   .   .    .
 23021352 69  MT     94  10       .   .   .   .   .   .   .   .   .   .   .    .
 23021352 70  MT     99   7       .   .   .   .   .   .   .   .   .   .   .    .
 23021352 71  MT     96   8       .   .   .   .   .   .   .   .   .   .   .    .
 23021352 72  MT    105  15       .   .   .   .   .   .   .   .   .   .   .    .

----------- NAME=LITTLE HURD POND   DATE=72683   SPECIES=CREEK CHUB -----------

  STATCO   ID GEAR   TL  WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021352 1   MT     95   8       2 147  88 128   .   .   .   .   .   .   .    .
 23021352 2   MT    122  19       2 151  63 114   .   .   .   .   .   .   .    .
 23021352 3   MT    124  19       2 137  72 107   .   .   .   .   .   .   .    .
 23021352 4   MT    122  18       2 158  82 123   .   .   .   .   .   .   .    .
 23021352 5   MT    122  19       3 168  61  96   .   .   .   .   .   .   .    .
 23021352 6   MT    113  15       . 165  56 103   .   .   .   .   .   .   .    .
 23021352 1   MT    124  23       .   .   .   .   .   .   .   .   .   .   .    .

---------- NAME=LITTLE HURD POND   DATE=72683   SPECIES=GOLDEN SHINER ----------

  STATCO   ID GEAR   TL  WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021352 1   MT     96   8       2  95  44  74   .   .   .   .   .   .   .    .
 23021352 2   MT     83   4       1  96  40   .   .   .   .   .   .   .   .    .
 23021352 3   MT    126  19       3 179  52 114   .   .   .   .   .   .   .    .
 23021352 4   MT    105  11       2 131  46 112   .   .   .   .   .   .   .    .
 23021352 5   MT    111  13       3 168  49 122   .   .   .   .   .   .   .    .
 23021352 6   MT    112  12       3 128  39  96   .   .   .   .   .   .   .    .

-------- NAME=LITTLE HURD POND   DATE=72683   SPECIES=PUMPKINSEED SUNF ---------

  STATCO   ID GEAR TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021352 1   MT   75 7         3  63  21  39   .   .   .   .   .   .   .    .
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---------- NAME=LITTLE HURD POND   DATE=72683   SPECIES=WHITE SUCKER -----------

STATCO   ID GEAR TL   WT  SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23021352  1  MT  117  14        1  46  32   .   .   .   .   .   .   .   .   .
23021352  2  MT  103   8        1  41  34   .   .   .   .   .   .   .   .   .
23021352  3  GN  203  79  M     3  96  35  56   .   .   .   .   .   .   .   .
23021352  4  GN  196  69        3 109  51  79   .   .   .   .   .   .   .   .
23021352  5  GN  191  64  M     3 115  44  80   .   .   .   .   .   .   .   .
23021352  6  GN  171  47        3  88  33  58   .   .   .   .   .   .   .   .
23021352  7  GN  187  59        3 105  42  73   .   .   .   .   .   .   .   .
23021352  8  GN  189  55        3 107  44  56   .   .   .   .   .   .   .   .
23021352  9  GN  176  53  M     3  98  39  56   .   .   .   .   .   .   .   .
23021352 10  GN  258 157  F     5 161  31  61 124 156   .   .   .   .   .   .
23021352 11  GN  177  55        3 117  46  68   .   .   .   .   .   .   .   .
23021352 12  GN  176  50        3  88  24  44   .   .   .   .   .   .   .   .
23021352 13  GN  181  56  F     3 107  38  54   .   .   .   .   .   .   .   .
23021352 14  GN  185  56  M     3 103  37  53   .   .   .   .   .   .   .   .
23021352 15  GN  183  62  M     3 107  33  72   .   .   .   .   .   .   .   .
23021352 16  GN  169  48  F     2  81  30  56   .   .   .   .   .   .   .   .
23021352 17  GN  167  44        2  80  26  58   .   .   .   .   .   .   .   .
23021352 18  GN  183  64  F     3 109  45  72   .   .   .   .   .   .   .   .
23021352 19  GN  189  62  M     3  96  33  54   .   .   .   .   .   .   .   .
23021352 20  GN  169  46  F     2  89  44  68   .   .   .   .   .   .   .   .
23021352 21  GN  171  52  F     2  91  42  75   .   .   .   .   .   .   .   .
23021352 22  GN  205  78  F     3 103  39  54   .   .   .   .   .   .   .   .
23021352 23  GN  177  51        .   .   .   .   .   .   .   .   .   .   .   .
23021352 24  GN  193  72  F     .   .   .   .   .   .   .   .   .   .   .   .
23021352 25  GN  173  52        .   .   .   .   .   .   .   .   .   .   .   .
23021352 26  GN  177  51  F     .   .   .   .   .   .   .   .   .   .   .   .
23021352 27  GN  181  52        .   .   .   .   .   .   .   .   .   .   .   .
23021352 28  GN  167  47  M     .   .   .   .   .   .   .   .   .   .   .   .
23021352 29  GN  184  62  M     .   .   .   .   .   .   .   .   .   .   .   .
23021352 30  GN  189  67        .   .   .   .   .   .   .   .   .   .   .   .
23021352 31  GN  185  59        .   .   .   .   .   .   .   .   .   .   .   .
23021352 32  GN  167  46        .   .   .   .   .   .   .   .   .   .   .   .
23021352 33  GN  203  77  F     .   .   .   .   .   .   .   .   .   .   .   .
23021352 34  GN  179  51  M     .   .   .   .   .   .   .   .   .   .   .   .
23021352 35  GN  187  61  F     .   .   .   .   .   .   .   .   .   .   .   .
23021352 36  GN  184  60  F     .   .   .   .   .   .   .   .   .   .   .   .
23021352 37  GN  176  52        .   .   .   .   .   .   .   .   .   .   .   .
23021352 38  GN  164  24  M     .   .   .   .   .   .   .   .   .   .   .   .
23021352 39  GN  187  57  F     .   .   .   .   .   .   .   .   .   .   .   .
23021352 40  GN  181  57  F     .   .   .   .   .   .   .   .   .   .   .   .
23021352 41  GN  190  60  F     .   .   .   .   .   .   .   .   .   .   .   .
23021352 42  GN  184  64  F     .   .   .   .   .   .   .   .   .   .   .   .
23021352 43  GN  121  17        .   .   .   .   .   .   .   .   .   .   .   .
23021352 44  GN  132  22        .   .   .   .   .   .   .   .   .   .   .   .
23021352 45  GN  126  18        .   .   .   .   .   .   .   .   .   .   .   .
23021352 46  GN  121  17        .   .   .   .   .   .   .   .   .   .   .   .
23021352 47  GN  118  16        .   .   .   .   .   .   .   .   .   .   .   .
23021352 48  GN  112  14        .   .   .   .   .   .   .   .   .   .   .   .
23021352 49  GN  113  13        .   .   .   .   .   .   .   .   .   .   .   .
23021352 50  GN  121  17        .   .   .   .   .   .   .   .   .   .   .   .
23021352 51  GN  119  15        .   .   .   .   .   .   .   .   .   .   .   .
23021352 52  GN  110  13        .   .   .   .   .   .   .   .   .   .   .   .
23021352 53  GN  119  15        .   .   .   .   .   .   .   .   .   .   .   .
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---------- NAME=LITTLE HURL POND   DATE=72683   SPECIES=WHITE SUCKER -----------

  STATCO  ID GEAR TL  WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021352 54   GN  114 15         .   .   .   .   .   .   .   .   .   .   .   .
 23021352 55   GN  119 16         .   .   .   .   .   .   .   .   .   .   .   .
 23021352 56   GN  120 19         .   .   .   .   .   .   .   .   .   .   .   .
 23021352 57   GN  117 16         .   .   .   .   .   .   .   .   .   .   .   .
 23021352 58   GN  112 14         .   .   .   .   .   .   .   .   .   .   .   .
 23021352 59   GN  109 13         .   .   .   .   .   .   .   .   .   .   .   .
 23021352 60   GN  122 19         .   .   .   .   .   .   .   .   .   .   .   .
 23021352 61   GN  113 16         .   .   .   .   .   .   .   .   .   .   .   .
 23021352 62   GN  127 19         .   .   .   .   .   .   .   .   .   .   .   .
 23021352 63   MT  107 12         .   .   .   .   .   .   .   .   .   .   .   .

------------- NAME=LOST POND   DATE=71983   SPECIES=FINESCALE DACE -------------

  STATCO  ID GEAR TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021351  1   MT  69 4         .   .   .   .   .   .   .   .   .   .   .   .
 23021351  2   MT  79 5         .   .   .   .   .   .   .   .   .   .   .   .
 23021351  3   MT  83 5         .   .   .   .   .   .   .   .   .   .   .   .
 23021351  4   MT  71 4         .   .   .   .   .   .   .   .   .   .   .   .
 23021351  5   MT  72 3         .   .   .   .   .   .   .   .   .   .   .   .
 23021351  6   MT  76 4         .   .   .   .   .   .   .   .   .   .   .   .
 23021351  7   MT  77 5         .   .   .   .   .   .   .   .   .   .   .   .
 23021351  8   MT  70 3         .   .   .   .   .   .   .   .   .   .   .   .
 23021351  9   MT  62 2         .   .   .   .   .   .   .   .   .   .   .   .
 23021351 10   MT  76 4         .   .   .   .   .   .   .   .   .   .   .   .
 23021351 11   MT  56 2         .   .   .   .   .   .   .   .   .   .   .   .
 23021351 12   MT  71 3         .   .   .   .   .   .   .   .   .   .   .   .
 23021351 13   MT  53 2         .   .   .   .   .   .   .   .   .   .   .   .
 23021351 14   MT  75 4         .   .   .   .   .   .   .   .   .   .   .   .
 23021351 15   MT  76 3         .   .   .   .   .   .   .   .   .   .   .   .
 23021351 16   MT  52 1         .   .   .   .   .   .   .   .   .   .   .   .

------------ NAME=LOST POND   DATE=71983   SPECIES=REDBREAST SUNFIS ------------

  STATCO  ID GEAR TL  WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021351  1   GN  119 34         4  133 28  56  115  .   .   .   .   .   .   .
 23021351  2   GN  118 36         4  137 25  63  120  .   .   .   .   .   .   .
 23021351  3   MT   80  9         2   92 24  65    .  .   .   .   .   .   .   .
 23021351  4   MT   80  9         2   80 20  54    .  .   .   .   .   .   .   .
 23021351  5   MT   78  9         .    .  .   .    .  .   .   .   .   .   .   .
 23021351  6   MT   76  8         .    .  .   .    .  .   .   .   .   .   .   .
 23021351  7   MT   60  4         .    .  .   .    .  .   .   .   .   .   .   .
 23021351  8   MT   79  9         .    .  .   .    .  .   .   .   .   .   .   .
 23021351  9   MT   77  9         .    .  .   .    .  .   .   .   .   .   .   .
 23021351 10   MT   79  9         .    .  .   .    .  .   .   .   .   .   .   .
 23021351 11   MT   71  7         .    .  .   .    .  .   .   .   .   .   .   .
 23021351 12   MT   80  9         .    .  .   .    .  .   .   .   .   .   .   .
 23021351 13   MT   53  3         .    .  .   .    .  .   .   .   .   .   .   .
 23021351 14   MT   55  3         .    .  .   .    .  .   .   .   .   .   .   .
 23021351 15   MT   75  8         .    .  .   .    .  .   .   .   .   .   .   .
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------------ NAME=LOST POND   DATE=71983   SPECIES=REDBREAST SUNFIS ------------

  STATCO   ID GEAR TL  WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021351 16  MT   49  2        .   .   .   .   .   .   .   .   .   .   .   .
 23021351 17  MT   55  3        .   .   .   .   .   .   .   .   .   .   .   .
 23021351 18  MT   57  3        .   .   .   .   .   .   .   .   .   .   .   .
 23021351 19  MT   80  9        .   .   .   .   .   .   .   .   .   .   .   .
 23021351 20  MT   54  3        .   .   .   .   .   .   .   .   .   .   .   .
 23021351 21  MT   57  3        .   .   .   .   .   .   .   .   .   .   .   .
 23021351 22  MT   76  8        .   .   .   .   .   .   .   .   .   .   .   .
 23021351 23  MT   79  9        .   .   .   .   .   .   .   .   .   .   .   .
 23021351 24  MT   54  3        .   .   .   .   .   .   .   .   .   .   .   .
 23021351 25  MT   55  3        .   .   .   .   .   .   .   .   .   .   .   .
 23021351 26  MT   72  7        .   .   .   .   .   .   .   .   .   .   .   .
 23021351 27  MT   78  8        .   .   .   .   .   .   .   .   .   .   .   .
 23021351 28  MT   52  3        .   .   .   .   .   .   .   .   .   .   .   .
 23021351 17  MT   76  4        .   .   .   .   .   .   .   .   .   .   .   .
 23021351 18  MT   72  3        .   .   .   .   .   .   .   .   .   .   .   .
 23021351 19  MT   75  4        .   .   .   .   .   .   .   .   .   .   .   .
 23021351 20  MT   67  3        .   .   .   .   .   .   .   .   .   .   .   .
 23021351 21  MT   64  3        .   .   .   .   .   .   .   .   .   .   .   .
 23021351 22  MT   64  3        .   .   .   .   .   .   .   .   .   .   .   .
 23021351 23  MT   50  1        .   .   .   .   .   .   .   .   .   .   .   .
 23021351 24  MT   60  2        .   .   .   .   .   .   .   .   .   .   .   .
 23021351 25  MT   70  4        .   .   .   .   .   .   .   .   .   .   .   .
 23021351 26  MT   52  3        .   .   .   .   .   .   .   .   .   .   .   .
 23021351 27  MT   62  2        .   .   .   .   .   .   .   .   .   .   .   .


------------- NAME=LOST POND   DATE=71983   SPECIES=WHITE SUCKER -------------

  STATCO   ID GEAR TL   WT  SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021351   1  GN  325 363   M   3  233 53  186   .   .   .   .   .   .   .   .
 23021351   2  GN  434 931   F   4  282 52   91 263   .   .   .   .   .   .   .
 23021351   3  GN  317 361   M   3  214 66  175   .   .   .   .   .   .   .   .
 23021351   4  GN  329 394   M   3  228 53  179   .   .   .   .   .   .   .   .
 23021351   5  GN  170  55   M   1   96 54    .   .   .   .   .   .   .   .   .
 23021351   6  GN  181  63   M   1   82 47    .   .   .   .   .   .   .   .   .
 23021351   7  GN  321 379   M   3  215 52  175   .   .   .   .   .   .   .   .
 23021351   8  GN  295 332   M   3  200 54   88   .   .   .   .   .   .   .   .
 23021351   9  GN  244 171   M   2  147 39   89   .   .   .   .   .   .   .   .
 23021351  10  GN  179  64   M   1   96 51    .   .   .   .   .   .   .   .   .
 23021351  11  GN  176  62   M   1   93 54    .   .   .   .   .   .   .   .   .
 23021351  12  GN  309 350   M   2  186 51  138   .   .   .   .   .   .   .   .
 23021351  13  GN  180  59   M   1   95 53    .   .   .   .   .   .   .   .   .
 23021351  14  GN  182  71   M   1   94 51    .   .   .   .   .   .   .   .   .
 23021351  15  GN  189  81   M   1   89 51    .   .   .   .   .   .   .   .   .
 23021351  16  GN  191  73   M   1  105 58    .   .   .   .   .   .   .   .   .
 23021351  17  GN  184  66   M   1   84 51    .   .   .   .   .   .   .   .   .
 23021351  18  GN  184  70   M   1   96 52    .   .   .   .   .   .   .   .   .
 23021351  19  GN  181  64   M   1   96 54    .   .   .   .   .   .   .   .   .
 23021351  20  GN  293 297   M   2  161 53  130   .   .   .   .   .   .   .   .
 23021351  21  GN  181           .    .  .    .   .   .   .   .   .   .   .   .
 23021351  22  GN  307 365   M   .    .  .    .   .   .   .   .   .   .   .   .
 23021351  23  GN  314 348   M   .    .  .    .   .   .   .   .   .   .   .   .
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-------------- NAME=LOST POND   DATE=71983   SPECIES=WHITE SUCKER --------------

  STATCO   ID GEAR  TL   WT  SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021351 24   GN   341 431   M   .   .   .   .   .   .   .   .   .   .   .   .
 23021351 25   GN   320 382       .   .   .   .   .   .   .   .   .   .   .   .
 23021351 26   GN   [illegible] 302       .   .   .   .   .   .   .   .   .   .   .   .
 23021351 27   GN   316 409   M   .   .   .   .   .   .   .   .   .   .   .   .
 23021351 28   GN   197  94   M   .   .   .   .   .   .   .   .   .   .   .   .

----------- NAME=PORTER POND   DATE=72982   SPECIES=CENTRARCHID SP. ------------

   STATCO  ID GEAR  TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

   23009361  1  GN   72 6       .   .   .   .   .   .   .   .   .   .   .   .
   23009361  3  MT   65 4       .   .   .   .   .   .   .   .   .   .   .   .
   23009361  2  GN   40 1       .   .   .   .   .   .   .   .   .   .   .   .
   23009361  4  MT   55 2       .   .   .   .   .   .   .   .   .   .   .   .
   23009361  5  MT   60 3       .   .   .   .   .   .   .   .   .   .   .   .
   23009361  6  MT   58 3       .   .   .   .   .   .   .   .   .   .   .   .
   23009361  7  MT   78 8       .   .   .   .   .   .   .   .   .   .   .   .
   23009361  8  MT   70 6       .   .   .   .   .   .   .   .   .   .   .   .
   23009361  9  MT   58 2       .   .   .   .   .   .   .   .   .   .   .   .
   23009361 10  MT   56 3       .   .   .   .   .   .   .   .   .   .   .   .
   23009361 11  MT   60 3       .   .   .   .   .   .   .   .   .   .   .   .
   23009361 12  MT   59 3       .   .   .   .   .   .   .   .   .   .   .   .
   23009361 13  MT   59 2       .   .   .   .   .   .   .   .   .   .   .   .
   23009361 14  MT   70 5       .   .   .   .   .   .   .   .   .   .   .   .
   23009361 15  MT   75 3       .   .   .   .   .   .   .   .   .   .   .   .
   23009361 16  MT   55 3       .   .   .   .   .   .   .   .   .   .   .   .
   23009361 17  MT   70 5       .   .   .   .   .   .   .   .   .   .   .   .
   23009361 18  MT   65 3       .   .   .   .   .   .   .   .   .   .   .   .
   23009361 19  MT   74 6       .   .   .   .   .   .   .   .   .   .   .   .
   23009361 20  MT   60 3       .   .   .   .   .   .   .   .   .   .   .   .
   23009361 21  MT   70 2       .   .   .   .   .   .   .   .   .   .   .   .
   23009361 22  MT   55 5       .   .   .   .   .   .   .   .   .   .   .   .
   23009361 23  MT   60 3       .   .   .   .   .   .   .   .   .   .   .   .
   23009361 24  MT   55 2       .   .   .   .   .   .   .   .   .   .   .   .
   23009361 25  MT   60 4       .   .   .   .   .   .   .   .   .   .   .   .
   23009361 26  MT   60 3       .   .   .   .   .   .   .   .   .   .   .   .
   23009361 27  MT   76 6       .   .   .   .   .   .   .   .   .   .   .   .
   23009361 28  MT   64 3       .   .   .   .   .   .   .   .   .   .   .   .
   23009361 29  MT   50 2       .   .   .   .   .   .   .   .   .   .   .   .
   23009361 30  MT   60 3       .   .   .   .   .   .   .   .   .   .   .   .
   23009361 31  MT   52 2       .   .   .   .   .   .   .   .   .   .   .   .
   23009361 32  MT   79 6       .   .   .   .   .   .   .   .   .   .   .   .
   23009361 33  MT   62 4       .   .   .   .   .   .   .   .   .   .   .   .
   23009361 34  MT   80 8       .   .   .   .   .   .   .   .   .   .   .   .
   23009361 35  MT   55 3       .   .   .   .   .   .   .   .   .   .   .   .
   23009361 36  MT   56 3       .   .   .   .   .   .   .   .   .   .   .   .
   23009361 37  MT   56 3       .   .   .   .   .   .   .   .   .   .   .   .
   23009361 38  MT   50 2       .   .   .   .   .   .   .   .   .   .   .   .
   23009361 39  MT   65 5       .   .   .   .   .   .   .   .   .   .   .   .
   23009361 40  MT   50 3       .   .   .   .   .   .   .   .   .   .   .   .
   23009361 41  MT   65 4       .   .   .   .   .   .   .   .   .   .   .   .
   23009361 42  MT   64 5       .   .   .   .   .   .   .   .   .   .   .   .
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----------- NAME=PORTER POND   DATE=72982   SPECIES=CENTRARCHID SP. -----------

 STATCO   ID GEAR TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23009361 43  MT  66 4        .   .   .   .   .   .   .   .   .   .   .   .
23009361 44  MT  57 3        .   .   .   .   .   .   .   .   .   .   .   .
23009361 45  MT  40 1        .   .   .   .   .   .   .   .   .   .   .   .
23009361 46  MT  45 1        .   .   .   .   .   .   .   .   .   .   .   .
23009361 47  MT  46 1        .   .   .   .   .   .   .   .   .   .   .   .
23009361 48  MT  40 1        .   .   .   .   .   .   .   .   .   .   .   .
23009361 49  MT  45 1        .   .   .   .   .   .   .   .   .   .   .   .
23009361 50  MT  40 1        .   .   .   .   .   .   .   .   .   .   .   .
23009361 51  MT  44 1        .   .   .   .   .   .   .   .   .   .   .   .
23009361 52  MT  46 1        .   .   .   .   .   .   .   .   .   .   .   .
23009361 53  MT  40 1        .   .   .   .   .   .   .   .   .   .   .   .
23009361 54  MT  44 1        .   .   .   .   .   .   .   .   .   .   .   .
23009361 55  MT  60 3        .   .   .   .   .   .   .   .   .   .   .   .
23009361 56  MT  40 1        .   .   .   .   .   .   .   .   .   .   .   .
23009361 57  MT  41 1        .   .   .   .   .   .   .   .   .   .   .   .
23009361 58  MT  40 1        .   .   .   .   .   .   .   .   .   .   .   .
23009361 59  MT  39 1        .   .   .   .   .   .   .   .   .   .   .   .
23009361 60  MT  40 1        .   .   .   .   .   .   .   .   .   .   .   .
23009361 61  MT  39 1        .   .   .   .   .   .   .   .   .   .   .   .
23009361 62  MT  40 1        .   .   .   .   .   .   .   .   .   .   .   .
23009361 63  MT  59 2        .   .   .   .   .   .   .   .   .   .   .   .
23009361 64  MT  42 1        .   .   .   .   .   .   .   .   .   .   .   .
23009361 65  MT  49 2        .   .   .   .   .   .   .   .   .   .   .   .
23009361 66  MT  45 1        .   .   .   .   .   .   .   .   .   .   .   .
23009361 67  MT  40 1        .   .   .   .   .   .   .   .   .   .   .   .


------------ NAME=PORTER POND   DATE=72982   SPECIES=COMMON SHINER ------------

 STATCO   ID GEAR TL  WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23009361  1  GN  120 23       .    .   .   .  .   .   .   .   .   .   .   .
23009361  2  MT  105 11       2  177  68 123  .   .   .   .   .   .   .   .
23009361  3  MT  120 18       2  166  86 138  .   .   .   .   .   .   .   .
23009361  4  MT  109 12       2  168  70 131  .   .   .   .   .   .   .   .
23009361  5  MT  108 12       2  158  53 122  .   .   .   .   .   .   .   .
23009361  6  MT   87 11       1  116  74   .  .   .   .   .   .   .   .   .
23009361  7  MT  114 14       2  165  72 137  .   .   .   .   .   .   .   .
23009361  8  MT  103 10       .    .   .   .  .   .   .   .   .   .   .   .
23009361  9  MT  105 11       2  158  67 112  .   .   .   .   .   .   .   .
23009361 10  MT  115 17       2  161  88 140  .   .   .   .   .   .   .   .
23009361 11  MT  125 19       2  186  89 156  .   .   .   .   .   .   .   .
23009361 12  MT   90  7       2  166  87 140  .   .   .   .   .   .   .   .
23009361 13  MT   97  9       2  156  67 109  .   .   .   .   .   .   .   .
23009361 14  MT  100 11       2  154  53 105  .   .   .   .   .   .   .   .
23009361 15  MT  106 11       2  163  63 137  .   .   .   .   .   .   .   .
23009361 16  MT   70  3       1   91  63   .  .   .   .   .   .   .   .   .
23009361 17  MT  100 10       2  149  61 107  .   .   .   .   .   .   .   .
23009361 18  MT  115 16       2  180  89 152  .   .   .   .   .   .   .   .
23009361 19  MT   73  3       .    .   .   .  .   .   .   .   .   .   .   .
23009361 20  MT   93  7       2  138  54 105  .   .   .   .   .   .   .   .
23009361 21  MT  102 10       .    .   .   .  .   .   .   .   .   .   .   .
23009361 22  MT  104 10       .    .   .   .  .   .   .   .   .   .   .   .
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------------- NAME=PORTER POND   DATE=72982   SPECIES=COMMON SHINER -------------

  STATCO   ID GEAR TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23009361 23  MT   89 7           .    .    .    .    .    .    .    .    .    .    .    .
 23009361 24  MT   96 9           .    .    .    .    .    .    .    .    .    .    .    .
 23009361 25  MT   88 6           .    .    .    .    .    .    .    .    .    .    .    .

-------------- NAME=PORTER POND   DATE=72982   SPECIES=CREEK CHUB --------------

  STATCO   ID GEAR TL  WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23009361  1  GN  120 22       .    .     .    .   .    .    .    .    .    .    .    .
 23009361  2  GN  140 29       .    .     .    .   .    .    .    .    .    .    .    .
 23009361  3  GN  128 30       .    .     .    .   .    .    .    .    .    .    .    .
 23009361  4  GN  117 27       .    .     .    .   .    .    .    .    .    .    .    .
 23009361  5  GN  114 26       .    .     .    .   .    .    .    .    .    .    .    .
 23009361  6  GN  107 21       .    .     .    .   .    .    .    .    .    .    .    .
 23009361  7  MT  115 14       3  142    31   78   .    .    .    .    .    .    .    .
 23009361  8  MT   90  7       2  122    43   82   .    .    .    .    .    .    .    .
 23009361  9  MT   95  7       2  117    44   76   .    .    .    .    .    .    .    .
 23009361 10  MT   95  8       3  130    35   70   .    .    .    .    .    .    .    .

------------- NAME=PORTER POND   DATE=72982   SPECIES=GOLDEN SHINER -------------

  STATCO   ID GEAR TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23009361 1   GN  75 3            .    .    .    .    .    .    .    .    .    .    .    .
 23009361 2   MT  80 3            .    .    .    .    .    .    .    .    .    .    .    .
 23009361 3   MT  70 4            .    .    .    .    .    .    .    .    .    .    .    .
 23009361 4   MT  72 3            .    .    .    .    .    .    .    .    .    .    .    .
 23009361 5   MT  80 4            .    .    .    .    .    .    .    .    .    .    .    .

------------ NAME=PORTER POND   DATE=72982   SPECIES=PUMPKINSEED SUNF ------------

  STATCO   ID GEAR TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23009361 1   GN  75  6          .    .    .    .   .    .    .    .    .    .    .    .
 23009361 2   MT  72  6          2   57   26   44   .    .    .    .    .    .    .    .
 23009361 3   MT  90 10          2   71   26   50   .    .    .    .    .    .    .    .

------------ NAME=PORTER POND   DATE=72982   SPECIES=REDBREAST SUNFIS ------------

  STATCO   ID GEAR  TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23009361  1  GN    79 17       .    .    .    .    .   .    .    .    .    .    .    .
 23009361  2  GN   119 30       .    .    .    .    .   .    .    .    .    .    .    .
 23009361  3  GN    65  9       .    .    .    .    .   .    .    .    .    .    .    .
 23009361  4  GN   136 42       .    .    .    .    .   .    .    .    .    .    .    .
 23009361  5  GN    70  6       .    .    .    .    .   .    .    .    .    .    .    .
 23009361  6  MT    86 10       4  106   23   44   90   .    .    .    .    .    .    .
 23009361  7  MT    85 10       3   73   30   50    .   .    .    .    .    .    .    .
 23009361  8  MT    66  5       3   85   27   49    .   .    .    .    .    .    .    .
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----------- NAME=PORTER POND   DATE=72982   SPECIES=REDBREAST SUNFIS -----------

  STATCO  ID GEAR TL  WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23009361  9  MT  91  12      4  111 23  43   98  .   .   .   .   .   .   .
 23009361 10  MT  72   6      3   77 26  47    .  .   .   .   .   .   .   .
 23009361 11  MT  70   5      4   92 25  41   78  .   .   .   .   .   .   .
 23009361 12  MT  55   3      2   45 23  35    .  .   .   .   .   .   .   .
 23009361 13  MT  80   8      3   75 33  47    .  .   .   .   .   .   .   .
 23009361 14  MT  65   4      3   73 21  42    .  .   .   .   .   .   .   .
 23009361 15  MT  82   9      4   85 22  39   74  .   .   .   .   .   .   .
 23009361 16  MT  80   9      4   94 23  42   80  .   .   .   .   .   .   .
 23009361 17  MT  69   5      3   75 29  53    .  .   .   .   .   .   .   .
 23009361 18  MT  66   4      3   71 20  45    .  .   .   .   .   .   .   .
 23009361 19  MT  75   7      4   95 25  45   80  .   .   .   .   .   .   .
 23009361 20  MT  69   5      4  100 25  46   86  .   .   .   .   .   .   .
 23009361 21  MT  52   3      2   55 19  44    .  .   .   .   .   .   .   .
 23009361 22  MT  59   3      2   58 20  49    .  .   .   .   .   .   .   .
 23009361 23  MT  76   6      3   86 18  49    .  .   .   .   .   .   .   .
 23009361 24  MT  64   4      3   69 21  36    .  .   .   .   .   .   .   .
 23009361 25  MT  80   8      3   79 23  41    .  .   .   .   .   .   .   .
 23009361 26  MT  83   8      4  115 32  63  103  .   .   .   .   .   .   .
 23009361 27  MT  75   7      4   95 25  49   79  .   .   .   .   .   .   .
 23009361 28  MT  45   1      2   53 24  44    .  .   .   .   .   .   .   .
 23009361 29  MT  78   7      4   71 19  34   61  .   .   .   .   .   .   .
 23009361 30  MT  72   6      4   69 16  31   62  .   .   .   .   .   .   .
 23009361 31  MT  62   4      .    .  .   .    .  .   .   .   .   .   .   .
 23009361 32  MT  55   3      .    .  .   .    .  .   .   .   .   .   .   .
 23009361 33  MT  78   7      .    .  .   .    .  .   .   .   .   .   .   .
 23009361 34  MT  72   6      .    .  .   .    .  .   .   .   .   .   .   .

------------- NAME=PORTER POND   DATE=72982   SPECIES=WHITE SUCKER -------------

  STATCO  ID GEAR TL   WT  SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23009361  1  GN  241 148  F    .    .   .   .    .  .   .   .   .   .   .   .
 23009361  2  GN  136 126  F    .    .   .   .    .  .   .   .   .   .   .   .
 23009361  3  GN  216 102       .    .   .   .    .  .   .   .   .   .   .   .
 23009361  4  GN  136 143       .    .   .   .    .  .   .   .   .   .   .   .
 23009361  5  GN  173  51       .    .   .   .    .  .   .   .   .   .   .   .
 23009361  6  GN  210  92  F    .    .   .   .    .  .   .   .   .   .   .   .
 23009361  7  GN  186  60       .    .   .   .    .  .   .   .   .   .   .   .
 23009361  8  GN  206  83       .    .   .   .    .  .   .   .   .   .   .   .
 23009361  9  GN  230 108  F    4  102  27  55   93  .   .   .   .   .   .   .
 23009361 10  GN  235 113  M    4  104  35  68   95  .   .   .   .   .   .   .
 23009361 11  GN  242 126  F    4   97  23  45   88  .   .   .   .   .   .   .
 23009361 12  GN  225 102  F    4  129  38  70  107  .   .   .   .   .   .   .
 23009361 13  GN  197  72  M    3   91  27  58    .  .   .   .   .   .   .   .
 23009361 14  GN  227 108  F    3  119  37  61    .  .   .   .   .   .   .   .
 23009361 15  GN  182  65  F    2   88  46  68    .  .   .   .   .   .   .   .
 23009361 16  GN  230 109  M    4  110  35  52   95  .   .   .   .   .   .   .
 23009361 17  GN  183  62  M    2   88  46  68    .  .   .   .   .   .   .   .
 23009361 18  GN  249 144  F    3   96  30  54    .  .   .   .   .   .   .   .
 23009361 19  GN  238 115  M    4  130  31  60  109  .   .   .   .   .   .   .
 23009361 20  GN  233 111  M    4  126  40  70  107  .   .   .   .   .   .   .
 23009361 21  GN  251 156  F    4  140  51  88  130  .   .   .   .   .   .   .
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------------- NAME=PORTER POND   DATE=72982   SPECIES=WHITE SUCKER -------------

 STATCO  ID GEAR TL   WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23009361 22  GN  182  57  M   2   76 39  58    .   .   .   .   .   .   .   .
23009361 23  GN  240 134  F   4  122 38  61  102   .   .   .   .   .   .   .
23009361 24  GN  181  57  M   2   74 35  56    .   .   .   .   .   .   .   .
23009361 25  GN  251 139  F   4  124 40  67  107   .   .   .   .   .   .   .
23009361 26  GN  254 156  M   4  117 46  65  100   .   .   .   .   .   .   .
23009361 27  GN  237 121  M   4  124 40  70  105   .   .   .   .   .   .   .
23009361 28  GN  180  55  M   2   82 52  70    .   .   .   .   .   .   .   .

----------- NAME=TROUT POND   DATE=71884   SPECIES=BANDED KILLIFISH -----------

  STATCO   ID GEAR TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23029364   1  GN  84 6       .   .   .   .   .   .   .   .   .   .   .   .
 23029364   2  GN  86 6       .   .   .   .   .   .   .   .   .   .   .   .
 23029364   3  GN  85 6       .   .   .   .   .   .   .   .   .   .   .   .
 23029364   4  GN  97 8       .   .   .   .   .   .   .   .   .   .   .   .
 23029364   5  GN  91 7       .   .   .   .   .   .   .   .   .   .   .   .
 23029364   6  GN  86 6       .   .   .   .   .   .   .   .   .   .   .   .
 23029364   7  GN  88 6       .   .   .   .   .   .   .   .   .   .   .   .
 23029364   8  GN  90 7       .   .   .   .   .   .   .   .   .   .   .   .
 23029364   9  GN  86 6       .   .   .   .   .   .   .   .   .   .   .   .
 23029364  10  GN  94 8       .   .   .   .   .   .   .   .   .   .   .   .
 23029364  11  GN  92 7       .   .   .   .   .   .   .   .   .   .   .   .
 23029364  12  GN  91 7       .   .   .   .   .   .   .   .   .   .   .   .
 23029364  13  GN  97 8       .   .   .   .   .   .   .   .   .   .   .   .
 23029364  14  GN  87 7       .   .   .   .   .   .   .   .   .   .   .   .
 23029364  15  GN  89 7       .   .   .   .   .   .   .   .   .   .   .   .
 23029364  16  GN  88 6       .   .   .   .   .   .   .   .   .   .   .   .
 23029364  17  GN  90 7       .   .   .   .   .   .   .   .   .   .   .   .
 23029364  18  GN  98 9       .   .   .   .   .   .   .   .   .   .   .   .
 23029364  19  GN  86 6       .   .   .   .   .   .   .   .   .   .   .   .
 23029364   1  MT  63 2       .   .   .   .   .   .   .   .   .   .   .   .
 23029364   2  MT  74 3       .   .   .   .   .   .   .   .   .   .   .   .
 23029364   3  MT  50 1       .   .   .   .   .   .   .   .   .   .   .   .

-------------- NAME=TROUT POND   DATE=71884   SPECIES=BROOK TROUT --------------

 STATCO   ID GEAR TL   WT   SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23029364   1  GN  378 610        .   .   .   .   .   .   .   .   .   .   .   .
23029364   2  GN  335 402        .   .   .   .   .   .   .   .   .   .   .   .
23029364   3  GN  297 280        .   .   .   .   .   .   .   .   .   .   .   .
23029364   4  GN  297 305        .   .   .   .   .   .   .   .   .   .   .   .
23029364   5  GN  169  61        .   .   .   .   .   .   .   .   .   .   .   .
23029364   6  GN  179  63        .   .   .   .   .   .   .   .   .   .   .   .
23029364   7  GN  180  58        .   .   .   .   .   .   .   .   .   .   .   .
23029364   8  GN  163  47        .   .   .   .   .   .   .   .   .   .   .   .
23029364   9  GN  157  46        .   .   .   .   .   .   .   .   .   .   .   .
23029364  10  GN  134  27        .   .   .   .   .   .   .   .   .   .   .   .
23029364  11  GN  124  16        .   .   .   .   .   .   .   .   .   .   .   .
23029364  12  GN  138  29        .   .   .   .   .   .   .   .   .   .   .   .
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-------------- NAME=TROUT POND   DATE=71884   SPECIES=BROOK TROUT --------------

  STATCO   ID GEAR  TL   WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23029364 13   GN   120  17       .   .   .   .   .   .   .   .   .   .   .    .
23029364 14   GN   118  15       .   .   .   .   .   .   .   .   .   .   .    .
23029364 15   GN   104  10       .   .   .   .   .   .   .   .   .   .   .    .
23029364 16   GN   160  43       .   .   .   .   .   .   .   .   .   .   .    .
23029364 17   GN   146  32       .   .   .   .   .   .   .   .   .   .   .    .
23029364 18   GN   164  52       .   .   .   .   .   .   .   .   .   .   .    .
23029364 19   GN   143  32       .   .   .   .   .   .   .   .   .   .   .    .
23029364 20   GN   147  34       .   .   .   .   .   .   .   .   .   .   .    .
23029364 21   GN   125  20       .   .   .   .   .   .   .   .   .   .   .    .
23029364 22   GN   124  22       .   .   .   .   .   .   .   .   .   .   .    .
23029364 23   GN   144  30       .   .   .   .   .   .   .   .   .   .   .    .
23029364 24   GN   121  17       .   .   .   .   .   .   .   .   .   .   .    .
23029364 25   GN   134  23       .   .   .   .   .   .   .   .   .   .   .    .
23029364 26   GN   129  21       .   .   .   .   .   .   .   .   .   .   .    .
23029364 27   GN   144  30       .   .   .   .   .   .   .   .   .   .   .    .
23029364 28   GN   115  15       .   .   .   .   .   .   .   .   .   .   .    .

------------ NAME=TROUT POND   DATE=71884   SPECIES=CENTRARCHID SP. ------------

  STATCO   ID GEAR  TL  WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23029364 .    MT    .   .        .   .   .   .   .   .   .   .   .   .   .    .

----------------- NAME=TROUT POND   DATE=71884   SPECIES=EMPTY -----------------

  STATCO   ID GEAR  TL  WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23029364 .    TN    .   .        .   .   .   .   .   .   .   .   .   .   .    .

------------ NAME=TROUT POND   DATE=71884   SPECIES=FATHEAD MINNOW -------------

  STATCO   ID GEAR  TL  WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23029364 .    GN    .   .        .   .   .   .   .   .   .   .   .   .   .    .

-------------- NAME=TROUT POND   DATE=71884   SPECIES=GOLDEN SHINER -------------

  STATCO   ID GEAR  TL   WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23029364  1   GN   137  32       .   .   .   .   .   .   .   .   .   .   .    .
23029364  2   GN    79   4       .   .   .   .   .   .   .   .   .   .   .    .
23029364  3   GN   144  30       .   .   .   .   .   .   .   .   .   .   .    .
23029364  4   GN   105  11       .   .   .   .   .   .   .   .   .   .   .    .
23029364  5   GN   113  15       .   .   .   .   .   .   .   .   .   .   .    .
23029364  6   GN   114  16       .   .   .   .   .   .   .   .   .   .   .    .
23029364  7   GN    97   9       .   .   .   .   .   .   .   .   .   .   .    .
23029364  8   GN   104  13       .   .   .   .   .   .   .   .   .   .   .    .
23029364  9   GN    84   6       .   .   .   .   .   .   .   .   .   .   .    .
23029364 10   GN   111  16       .   .   .   .   .   .   .   .   .   .   .    .
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------------- NAME=TROUT POND   DATE=71884   SPECIES=GOLDEN SHINER -------------

  STATCO   ID GEAR  TL  WT SEX AGE BAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23029364  11   GN   104  12         .    .    .    .    .    .    .    .    .    .    .    .
 23029364  12   GN    87   7         .    .    .    .    .    .    .    .    .    .    .    .
 23029364  13   GN   107  13         .    .    .    .    .    .    .    .    .    .    .    .
 23029364  14   GN    80   6         .    .    .    .    .    .    .    .    .    .    .    .
 23029364  15   GN   105  12         .    .    .    .    .    .    .    .    .    .    .    .
 23029364  16   GN    84   7         .    .    .    .    .    .    .    .    .    .    .    .
 23029364  17   GN   101  11         .    .    .    .    .    .    .    .    .    .    .    .
 23029364  18   GN   106  12         .    .    .    .    .    .    .    .    .    .    .    .
 23029364  19   GN    96   8         .    .    .    .    .    .    .    .    .    .    .    .
 23029364  20   GN    78   5         .    .    .    .    .    .    .    .    .    .    .    .
 23029364  21   GN   100   9         .    .    .    .    .    .    .    .    .    .    .    .
 23029364  22   GN    79   6         .    .    .    .    .    .    .    .    .    .    .    .
 23029364  23   GN   104  11         .    .    .    .    .    .    .    .    .    .    .    .
 23029364  24   GN    99   8         .    .    .    .    .    .    .    .    .    .    .    .
 23029364  25   GN    88   5         .    .    .    .    .    .    .    .    .    .    .    .
 23029364  26   GN    97   9         .    .    .    .    .    .    .    .    .    .    .    .
 23029364  27   GN    84   6         .    .    .    .    .    .    .    .    .    .    .    .
 23029364  28   GN    96   9         .    .    .    .    .    .    .    .    .    .    .    .
 23029364   .   MT     .   .         .    .    .    .    .    .    .    .    .    .    .    .

----------- NAME=TROUT POND   DATE=71884   SPECIES=NO.REDBELLY DACE ------------

  STATCO   ID GEAR TL WT SEX AGE BAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23029364 .    MT  .  .        .    .    .    .    .    .    .    .    .    .    .    .

------------- NAME=TROUT POND   DATE=71884   SPECIES=RAINBOW SMELT -------------

  STATCO   ID GEAR  TL  WT SEX AGE BAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23029364   1   GN   130  11         .    .    .    .    .    .    .    .    .    .    .    .
 23029364   2   GN   133  13         .    .    .    .    .    .    .    .    .    .    .    .
 23029364   3   GN   124  10         .    .    .    .    .    .    .    .    .    .    .    .
 23029364   4   GN   129  12         .    .    .    .    .    .    .    .    .    .    .    .
 23029364   5   GN   127  11         .    .    .    .    .    .    .    .    .    .    .    .
 23029364   6   GN   132  13         .    .    .    .    .    .    .    .    .    .    .    .
 23029364   7   GN   131  13         .    .    .    .    .    .    .    .    .    .    .    .
 23029364   8   GN   117  10         .    .    .    .    .    .    .    .    .    .    .    .
 23029364   9   GN   125  12         .    .    .    .    .    .    .    .    .    .    .    .
 23029364  10   GN   129  13         .    .    .    .    .    .    .    .    .    .    .    .
 23029364  11   GN   124  11         .    .    .    .    .    .    .    .    .    .    .    .
 23029364  12   GN   133  13         .    .    .    .    .    .    .    .    .    .    .    .
 23029364  13   GN   123  11         .    .    .    .    .    .    .    .    .    .    .    .
 23029364  14   GN   130  13         .    .    .    .    .    .    .    .    .    .    .    .
 23029364  15   GN   129  11         .    .    .    .    .    .    .    .    .    .    .    .
 23029364  16   GN   126  11         .    .    .    .    .    .    .    .    .    .    .    .
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----------- NAME=TROUT POND   DATE=101382   SPECIES=BANDED KILLIFISH -----------

  STATCO   ID GEAR TL  WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23029364 1    MT   83 5         2  55  31  48   .   .   .   .   .   .   .   .

------------- NAME=TROUT POND   DATE=101382   SPECIES=BROOK TROUT --------------

 STATCO   ID GEAR TL    WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23029364   1  GN   199   65        2   34  11  25   .   .   .   .   .   .   .   .
23029364   2  GN   202   74        2   39  14  31   .   .   .   .   .   .   .   .
23029364   3  GN   176   50        1   24  12   .   .   .   .   .   .   .   .   .
23029364   4  GN   187   56        1   27  15   .   .   .   .   .   .   .   .   .
23029364   5  GN   296  271   M    2   47  17  34   .   .   .   .   .   .   .   .
23029364   6  GN   290  203   F    2   59  20  42   .   .   .   .   .   .   .   .
23029364   7  GN   301  274   M    2   45  20  34   .   .   .   .   .   .   .   .
23029364   8  GN   220  338   F    3   55  16  29   .   .   .   .   .   .   .   .
23029364   9  GN   310  311   F    3   68  20  39   .   .   .   .   .   .   .   .
23029364  10  GN   290  225   F    3   58  19  35   .   .   .   .   .   .   .   .
23029364  11  GN   147  150   M    2   37  15  28   .   .   .   .   .   .   .   .
23029364  12  GN   258  149   F    2   43  10  26   .   .   .   .   .   .   .   .
23029364  13  GN   244  141        2   38  11  28   .   .   .   .   .   .   .   .
23029364  14  GN   218   94        2   37  12  26   .   .   .   .   .   .   .   .
23029364  15  GN   191   67        2   34  12  27   .   .   .   .   .   .   .   .
23029364  16  GN   200   65        1   30  15   .   .   .   .   .   .   .   .   .
23029364  17  GN   200   69        2   32  12  26   .   .   .   .   .   .   .   .
23029364  18  GN   190   57        2   27  11  22   .   .   .   .   .   .   .   .
23029364  19  GN   174   47        1   43  20   .   .   .   .   .   .   .   .   .
23029364  20  GN   205   72   F    1   33  15   .   .   .   .   .   .   .   .   .
23029364  21  GN   320  322   F    3   43  14  27   .   .   .   .   .   .   .   .
23029364  22  GN   212   96   M    2   30  13  24   .   .   .   .   .   .   .   .
23029364  23  GN   193   62        2   33  13  25   .   .   .   .   .   .   .   .
23029364  24  GN   182   58   F    1   25  14   .   .   .   .   .   .   .   .   .
23029364  25  GN   186   51        2   35  16  29   .   .   .   .   .   .   .   .
23029364  26  GN   183   64   M    2   37  14  32   .   .   .   .   .   .   .   .
23029364  27  GN     .    .        .    .   .   .   .   .   .   .   .   .   .   .
23029364  28  GN     .    .        .    .   .   .   .   .   .   .   .   .   .   .
23029364  29  GN     .    .        .    .   .   .   .   .   .   .   .   .   .   .
23029364  30  GN     .    .        .    .   .   .   .   .   .   .   .   .   .   .
23029364  31  GN     .    .        .    .   .   .   .   .   .   .   .   .   .   .
23029364  32  GN     .    .        .    .   .   .   .   .   .   .   .   .   .   .
23029364  33  GN     .    .        .    .   .   .   .   .   .   .   .   .   .   .
23029364  34  GN     .    .        .    .   .   .   .   .   .   .   .   .   .   .
23029364  35  GN     .    .        .    .   .   .   .   .   .   .   .   .   .   .
23029364  36  GN     .    .        .    .   .   .   .   .   .   .   .   .   .   .
23029364  37  GN     .    .        .    .   .   .   .   .   .   .   .   .   .   .
23029364  39  GN     .    .        .    .   .   .   .   .   .   .   .   .   .   .
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-------------- NAME=TROUT POND   DATE=101382   SPECIES=FALLFISH --------------

STATCO    ID GEAR  TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23029364   1  MT   75 4        1  83  45   .   .   .   .   .   .   .   .    .
23029364   2  MT   65 2        1  85  55   .   .   .   .   .   .   .   .    .
23029364   3  MT   69 3        1  80  43   .   .   .   .   .   .   .   .    .
23029364   4  MT   76 4        1  92  42   .   .   .   .   .   .   .   .    .
23029364   5  MT   59 5        1  74  48   .   .   .   .   .   .   .   .    .
23029364   6  MT    . 3        .   .   .   .   .   .   .   .   .   .   .    .
23029364   7  MT   64 2        1  62  30   .   .   .   .   .   .   .   .    .
23029364   8  MT   43 1        .  43   .   .   .   .   .   .   .   .   .    .
23029364   9  MT   45 1        .  44   .   .   .   .   .   .   .   .   .    .
23029364  10  MT   50 1        .  55   .   .   .   .   .   .   .   .   .    .
23029364  11  MT   46 1        .  51   .   .   .   .   .   .   .   .   .    .
23029364  12  MT   56 2        .  57   .   .   .   .   .   .   .   .   .    .
23029364  13  MT   52 1        .  58   .   .   .   .   .   .   .   .   .    .
23029364  14  MT   59 2        1  75  45   .   .   .   .   .   .   .   .    .

------------ NAME=TROUT POND   DATE=101382   SPECIES=RAINBOW SMELT ------------

STATCO    ID GEAR  TL  WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23029364   1  GN  157 22       2 130  73 108   .   .   .   .   .   .   .    .
23029364   2  GN  150 19       2 145  69 118   .   .   .   .   .   .   .    .
23029364   3  GN  159 23       2 146  77 121   .   .   .   .   .   .   .    .
23029364   4  GN  156 22       2 148  80 125   .   .   .   .   .   .   .    .
23029364   5  GN  151 22       2 138  78 115   .   .   .   .   .   .   .    .

------------- NAME=TWIN POND   DATE=90283   SPECIES=BLACKNOSE DACE -------------

STATCO    ID GEAR  TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23021320   1  MT   71 3        2  81  44  70   .   .   .   .   .   .   .    .
23021320   2  MT   69 2        2  70  33  53   .   .   .   .   .   .   .    .
23021320   3  MT   72 3        2  64  30  52   .   .   .   .   .   .   .    .
23021320   4  MT   70 3        2  73  36  63   .   .   .   .   .   .   .    .
23021320   5  MT   74 3        2  89  34  61   .   .   .   .   .   .   .    .
23021320   6  MT   75 4        2  79  32  62   .   .   .   .   .   .   .    .
23021320   7  MT   70 3        2  67  29  50   .   .   .   .   .   .   .    .
23021320   8  MT   68 3        2  90  50  78   .   .   .   .   .   .   .    .
23021320   9  MT   69 2        2  63  34  54   .   .   .   .   .   .   .    .
23021320  10  MT   69 2        2  63  34  54   .   .   .   .   .   .   .    .
23021320  11  MT   58 1        1  53  32   .   .   .   .   .   .   .   .    .
23021320  12  MT   70 3        2  85  32  57   .   .   .   .   .   .   .    .
23021320  13  MT   65 3        2  78  40  63   .   .   .   .   .   .   .    .
23021320  14  MT   60 2        1  64  38   .   .   .   .   .   .   .   .    .
23021320  15  MT   70 3        2  89  34  64   .   .   .   .   .   .   .    .
23021320  16  MT   59 2        1  50  33   .   .   .   .   .   .   .   .    .
23021320  17  MT   64 2        1  66  42   .   .   .   .   .   .   .   .    .
23021320  18  MT   64 2        1  59  39   .   .   .   .   .   .   .   .    .
23021320  19  MT   60 2        1  70  40   .   .   .   .   .   .   .   .    .
23021320  20  MT   68 4        2  72  36  59   .   .   .   .   .   .   .    .
23021320  21  MT   69 3        .   .   .   .   .   .   .   .   .   .   .    .
23021320  22  MT   65 3        .   .   .   .   .   .   .   .   .   .   .    .
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------------- NAME=TWIN POND   DATE=90283   SPECIES=BLACKNOSE DACE -------------

  STATCO  ID GEAR  TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021320 23  MT   69 3          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 24  MT   65 3          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 25  MT   70 3          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 26  MT   65 3          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 27  MT   65 2          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 28  MT   67 3          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 29  MT   61 2          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 30  MT   62 3          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 31  MT   67 3          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 32  MT   62 1          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 33  MT   60 2          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 34  MT   56 2          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 35  MT   67 2          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 36  MT   65 2          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 37  MT   70 3          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 38  MT   64 1          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 39  MT   73 3          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 40  MT   59 2          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 41  MT   65 1          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 42  MT   57 1          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 43  MT   61 2          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 44  MT   70 2          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 45  MT   72 4          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 46  MT   64 2          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 47  MT   75 3          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 48  MT   62 3          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 49  MT   61 2          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 50  MT   56 2          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 51  MT   64 2          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 52  MT   66 2          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 53  MT   60 2          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 54  MT   70 2          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 55  MT   70 3          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 56  MT   66 2          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 57  MT   61 2          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 58  MT   56 1          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 59  MT   64 2          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 60  MT   66 2          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 61  MT   51 1          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 62  MT   61 2          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 63  MT   57 2          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 64  MT   65 2          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 65  MT   70 3          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 66  MT   65 3          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 67  MT   63 2          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 68  MT   64 2          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 69  MT   55 1          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 70  MT   61 2          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 71  MT   76 4          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 72  MT   69 2          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 73  MT   70 3          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 74  MT   64 3          .   .   .   .   .   .   .   .   .   .   .    .
 23021320 75  MT   65 2          .   .   .   .   .   .   .   .   .   .   .    .
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------------- NAME=TWIN POND   DATE=90283   SPECIES=BLACKNOSE DACE -------------

  STATCO  ID GEAR TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021320 76  MT  70 2       .   .   .   .   .   .   .   .   .   .   .   .
 23021320 77  MT  55 1       .   .   .   .   .   .   .   .   .   .   .   .
 23021320 78  MT  56 1       .   .   .   .   .   .   .   .   .   .   .   .
 23021320 79  MT  68 2       .   .   .   .   .   .   .   .   .   .   .   .
 23021320 80  MT  54 1       .   .   .   .   .   .   .   .   .   .   .   .
 23021320 81  MT  60 2       .   .   .   .   .   .   .   .   .   .   .   .
 23021320 82  MT  61 2       .   .   .   .   .   .   .   .   .   .   .   .
 23021320 83  MT  63 2       .   .   .   .   .   .   .   .   .   .   .   .
 23021320 84  MT  51 1       .   .   .   .   .   .   .   .   .   .   .   .

-------------- NAME=TWIN POND   DATE=90283   SPECIES=BROOK TROUT --------------

  STATCO  ID GEAR TL   WT  SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021320  1  GN  260 215  M    3   43  13  27   .   .   .   .   .   .   .   .
 23021320  2  GN  283 239  F    3   44  11  26   .   .   .   .   .   .   .   .
 23021320  3  GN  202  97  F    2   30  11  21   .   .   .   .   .   .   .   .
 23021320  4  GN  200  83  M    2   33  15  25   .   .   .   .   .   .   .   .
 23021320  5  GN  226 124  M    2   39  14  27   .   .   .   .   .   .   .   .
 23021320  6  GN  214  94  F    2   29  13  22   .   .   .   .   .   .   .   .
 23021320  7  GN  201  80  M    2   36  12  24   .   .   .   .   .   .   .   .
 23021320  8  GN  220 104  F    2   32  13  24   .   .   .   .   .   .   .   .
 23021320  9  GN  255 146  M    2   38  15  28   .   .   .   .   .   .   .   .
 23021320 10  GN  176  45  M    1   27  14   .   .   .   .   .   .   .   .   .
 23021320 11  GN  248 127  M    3   39  13  25   .   .   .   .   .   .   .   .
 23021320 12  GN  171  43  M    1   29  16   .   .   .   .   .   .   .   .   .
 23021320 13  GN  346 437  M    5   70  13  27  52  64   .   .   .   .   .   .

------------- NAME=TWIN POND   DATE=90283   SPECIES=GOLDEN SHINER -------------

  STATCO  ID GEAR TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021320 1   MT  55 1       .   .   .   .   .   .   .   .   .   .   .   .
 23021320 2   MT  49 1       .   .   .   .   .   .   .   .   .   .   .   .
 23021320 3   MT  60 1       .   .   .   .   .   .   .   .   .   .   .   .
 23021320 4   MT  58 2       .   .   .   .   .   .   .   .   .   .   .   .
 23021320 5   MT  67 2       .   .   .   .   .   .   .   .   .   .   .   .

------------- NAME=UNNAMED POND   DATE=80884   SPECIES=CREEK CHUB -------------

  STATCO  ID GEAR TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021355 .   GN  .  .       .   .   .   .   .   .   .   .   .   .   .   .
 23021355 .   TN  .  .       .   .   .   .   .   .   .   .   .   .   .   .
 23021355 .   MT  .  .       .   .   .   .   .   .   .   .   .   .   .   .
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------------ NAME=UNNAMED POND   DATE=80884   SPECIES=GOLDEN SHINER ------------

  STATCO  ID GEAR TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021355 .   GN  .  .        .   .   .   .   .   .   .   .   .   .   .   .
 23021355 .   TN  .  .        .   .   .   .   .   .   .   .   .   .   .   .
 23021355 .   MT  .  .        .   .   .   .   .   .   .   .   .   .   .   .
 23021355 .   MT  .  .        .   .   .   .   .   .   .   .   .   .   .   .

---------- NAME=UNNAMED POND   DATE=80884   SPECIES=NO.REDBELLY DACE -----------

  STATCO  ID GEAR TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021355 .   MT  .  .        .   .   .   .   .   .   .   .   .   .   .   .

------------- NAME=UNNAMED POND   DATE=80884   SPECIES=PEARL DACE --------------

  STATCO  ID GEAR TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021355 .   GN  .  .        .   .   .   .   .   .   .   .   .   .   .   .

------------ NAME=UNNAMED POND   DATE=80884   SPECIES=WHITE SUCKER ------------

 STATCO  ID GEAR TL   WT  SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23021355  4  GN  260 213  M   .   .   .   .   .   .   .   .   .   .   .   .
23021355  5  GN  341 479  F   .   .   .   .   .   .   .   .   .   .   .   .
23021355  6  GN  365 545  F   .   .   .   .   .   .   .   .   .   .   .   .
23021355  7  GN  376 628  F   .   .   .   .   .   .   .   .   .   .   .   .
23021355  1  TN  319 343  M   .   .   .   .   .   .   .   .   .   .   .   .
23021355  2  TN  380 566  F   .   .   .   .   .   .   .   .   .   .   .   .
23021355  3  TN  385 593  F   .   .   .   .   .   .   .   .   .   .   .   .
23021355  4  TN  329 381  F   .   .   .   .   .   .   .   .   .   .   .   .
23021355  5  TN  176  60      .   .   .   .   .   .   .   .   .   .   .   .
23021355  6  TN  149  36      .   .   .   .   .   .   .   .   .   .   .   .
23021355  7  TN  266 233      .   .   .   .   .   .   .   .   .   .   .   .
23021355  8  TN  319 369      .   .   .   .   .   .   .   .   .   .   .   .
23021355  9  TN  192  76      .   .   .   .   .   .   .   .   .   .   .   .
23021355 10  TN  207 103      .   .   .   .   .   .   .   .   .   .   .   .
23021355 11  TN  135  25      .   .   .   .   .   .   .   .   .   .   .   .
23021355 12  TN  225 134      .   .   .   .   .   .   .   .   .   .   .   .

------------- NAME=UNNAMED POND   DATE=80983   SPECIES=CREEK CHUD -------------

  STATCO  ID GEAR TL  WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021355  1  MT  149 41       2  186 44  131  .   .   .   .   .   .   .   .
 23021355  2  MT  125 22       2  168 40  115  .   .   .   .   .   .   .   .
 23021355  3  MT  100 11       2  152 42  109  .   .   .   .   .   .   .   .
 23021355  4  GN  106 15       2  155 41   95  .   .   .   .   .   .   .   .
 23021355  5  GN  137 33       2  188 35  107  .   .   .   .   .   .   .   .
 23021355  6  GN  171 54       3  245 45   93  .   .   .   .   .   .   .   .
 23021355  7  GN  112 17       2  125 27   93  .   .   .   .   .   .   .   .
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------------- NAME=UNNAMED POND   DATE=80983   SPECIES=CREEK CHUB -------------

  STATCO  ID GEAR  TL  WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23021355   8   GN 110  14       2 170  41 115   .   .   .   .   .   .   .    .
23021355   9   GN 117  16       2 142  38  99   .   .   .   .   .   .   .    .
23021355  10   GN 154   .       2 194  42 133   .   .   .   .   .   .   .    .
23021355  11   GN 109  15       2 162  26 115   .   .   .   .   .   .   .    .
23021355  12   GN 103  12       2 156  35 104   .   .   .   .   .   .   .    .
23021355  13   GN 113  16       2 137  20  92   .   .   .   .   .   .   .    .
23021355  14   GN 109   .       2 190  42 132   .   .   .   .   .   .   .    .
23021355  15   GN 111  16       2 136  27  96   .   .   .   .   .   .   .    .
23021355  16   GN 110  15       2 145  35  98   .   .   .   .   .   .   .    .
23021355  17   GN 112  16       2 143  32 100   .   .   .   .   .   .   .    .
23021355  18   GN 108  14       2 172  34 104   .   .   .   .   .   .   .    .
23021355  19   GN 113  15       2 147  33 113   .   .   .   .   .   .   .    .
23021355  20   GN 106  13       2 162  40 107   .   .   .   .   .   .   .    .
23021355  21   GN 110  13       2 158  39  98   .   .   .   .   .   .   .    .
23021355  22   GN 118  18       2 158  34 102   .   .   .   .   .   .   .    .
23021355  23   GN 108  14       2 172  45 120   .   .   .   .   .   .   .    .
23021355  24   GN 108  14       .   .   .   .   .   .   .   .   .   .   .    .
23021355  25   GN 110  13       .   .   .   .   .   .   .   .   .   .   .    .
23021355  26   GN 117   .       .   .   .   .   .   .   .   .   .   .   .    .
23021355  27   GN 106  14       .   .   .   .   .   .   .   .   .   .   .    .
23021355  28   GN 114  16       .   .   .   .   .   .   .   .   .   .   .    .
23021355  29   GN 112  16       .   .   .   .   .   .   .   .   .   .   .    .
23021355  30   GN 113  16       .   .   .   .   .   .   .   .   .   .   .    .
23021355  31   GN 101  10       .   .   .   .   .   .   .   .   .   .   .    .
23021355  32   GN 107  14       .   .   .   .   .   .   .   .   .   .   .    .
23021355  33   GN 109  15       .   .   .   .   .   .   .   .   .   .   .    .
23021355  34   GN 104  14       .   .   .   .   .   .   .   .   .   .   .    .
23021355  35   GN 106  14       .   .   .   .   .   .   .   .   .   .   .    .
23021355  36   GN 104  13       .   .   .   .   .   .   .   .   .   .   .    .
23021355  37   GN 112  15       .   .   .   .   .   .   .   .   .   .   .    .
23021355  38   GN 112  14       .   .   .   .   .   .   .   .   .   .   .    .
23021355  39   GN 109  14       .   .   .   .   .   .   .   .   .   .   .    .
23021355  40   MT 163  53       .   .   .   .   .   .   .   .   .   .   .    .
23021355  41   MT 151  42       .   .   .   .   .   .   .   .   .   .   .    .
23021355  42   MT 112  15       .   .   .   .   .   .   .   .   .   .   .    .
23021355  43   MT 112  16       .   .   .   .   .   .   .   .   .   .   .    .
23021355  44   MT 130  23       .   .   .   .   .   .   .   .   .   .   .    .
23021355  45   MT  99   9       .   .   .   .   .   .   .   .   .   .   .    .
23021355  46   MT 138  27       .   .   .   .   .   .   .   .   .   .   .    .
23021355  47   MT 126  22       .   .   .   .   .   .   .   .   .   .   .    .
23021355  48   MT 113  14       .   .   .   .   .   .   .   .   .   .   .    .
23021355  49   MT 121  18       .   .   .   .   .   .   .   .   .   .   .    .
23021355  50   MT 117  16       .   .   .   .   .   .   .   .   .   .   .    .
23021355  51   MT  98   9       .   .   .   .   .   .   .   .   .   .   .    .
23021355  52   MT 115  16       .   .   .   .   .   .   .   .   .   .   .    .
23021355  53   MT 132  24       .   .   .   .   .   .   .   .   .   .   .    .
23021355  54   MT 154  34       .   .   .   .   .   .   .   .   .   .   .    .
23021355  55   MT 127  25       .   .   .   .   .   .   .   .   .   .   .    .
23021355  56   MT 124  20       .   .   .   .   .   .   .   .   .   .   .    .
23021355  57   MT 115  18       .   .   .   .   .   .   .   .   .   .   .    .
23021355  58   MT 140  29       .   .   .   .   .   .   .   .   .   .   .    .
23021355  59   MT 127  19       .   .   .   .   .   .   .   .   .   .   .    .
23021355  60   MT 149  36       .   .   .   .   .   .   .   .   .   .   .    .
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------------- NAME=UNNAMED POND   DATE=60983   SPECIES=CREEK CHUB -------------

 STATCO   ID GEAR  TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23021355  61  MT  113 14      .   .   .   .   .   .   .   .   .   .   .   .
23021355  62  MT   97 10      .   .   .   .   .   .   .   .   .   .   .   .
23021355  63  MT  124 20      .   .   .   .   .   .   .   .   .   .   .   .
23021355  64  MT  112 16      .   .   .   .   .   .   .   .   .   .   .   .
23021355  65  MT  117 19      .   .   .   .   .   .   .   .   .   .   .   .
23021355  66  MT  120 20      .   .   .   .   .   .   .   .   .   .   .   .
23021355  67  MT  101  9      .   .   .   .   .   .   .   .   .   .   .   .
23021355  68  MT  138 30      .   .   .   .   .   .   .   .   .   .   .   .
23021355  69  MT  104 11      .   .   .   .   .   .   .   .   .   .   .   .
23021355  70  MT  100 11      .   .   .   .   .   .   .   .   .   .   .   .
23021355  71  MT  103 11      .   .   .   .   .   .   .   .   .   .   .   .
23021355  72  MT  129 21      .   .   .   .   .   .   .   .   .   .   .   .
23021355  73  MT   87  6      .   .   .   .   .   .   .   .   .   .   .   .
23021355  74  MT   95  9      .   .   .   .   .   .   .   .   .   .   .   .
23021355  75  MT   81  5      .   .   .   .   .   .   .   .   .   .   .   .
23021355  76  MT  126 21      .   .   .   .   .   .   .   .   .   .   .   .
23021355  77  MT  100 11      .   .   .   .   .   .   .   .   .   .   .   .
23021355  78  MT   98 10      .   .   .   .   .   .   .   .   .   .   .   .
23021355  79  MT  129 21      .   .   .   .   .   .   .   .   .   .   .   .
23021355  80  MT   94  8      .   .   .   .   .   .   .   .   .   .   .   .
23021355  81  MT  111 14      .   .   .   .   .   .   .   .   .   .   .   .
23021355  82  MT  137 28      .   .   .   .   .   .   .   .   .   .   .   .
23021355  83  MT   94  8      .   .   .   .   .   .   .   .   .   .   .   .
23021355  84  MT   99 10      .   .   .   .   .   .   .   .   .   .   .   .
23021355  85  MT  123 21      .   .   .   .   .   .   .   .   .   .   .   .
23021355  86  MT  124 22      .   .   .   .   .   .   .   .   .   .   .   .
23021355  87  MT  124 22      .   .   .   .   .   .   .   .   .   .   .   .
23021355  88  MT  106 13      .   .   .   .   .   .   .   .   .   .   .   .
23021355  89  MT   97  9      .   .   .   .   .   .   .   .   .   .   .   .
23021355  90  MT   97 10      .   .   .   .   .   .   .   .   .   .   .   .
23021355  91  MT  119 19      .   .   .   .   .   .   .   .   .   .   .   .
23021355  92  MT  114  6      .   .   .   .   .   .   .   .   .   .   .   .
23021355  93  MT  102 12      .   .   .   .   .   .   .   .   .   .   .   .
23021355  94  MT  106 13      .   .   .   .   .   .   .   .   .   .   .   .
23021355  95  MT  123 20      .   .   .   .   .   .   .   .   .   .   .   .
23021355  96  MT  103 13      .   .   .   .   .   .   .   .   .   .   .   .
23021355  97  MT  132 26      .   .   .   .   .   .   .   .   .   .   .   .
23021355  98  MT  137 27      .   .   .   .   .   .   .   .   .   .   .   .
23021355  99  MT   93  8      .   .   .   .   .   .   .   .   .   .   .   .
23021355 100  MT  120 18      .   .   .   .   .   .   .   .   .   .   .   .
23021355 101  MT  108 12      .   .   .   .   .   .   .   .   .   .   .   .
23021355 102  MT  116 17      .   .   .   .   .   .   .   .   .   .   .   .
23021355 103  MT  108 14      .   .   .   .   .   .   .   .   .   .   .   .
23021355 104  MT  116 17      .   .   .   .   .   .   .   .   .   .   .   .
23021355 105  MT  105 13      .   .   .   .   .   .   .   .   .   .   .   .
23021355 106  MT  106 12      .   .   .   .   .   .   .   .   .   .   .   .
23021355 107  MT  117 19      .   .   .   .   .   .   .   .   .   .   .   .
23021355 108  MT  115 19      .   .   .   .   .   .   .   .   .   .   .   .
23021355 109  MT   87  7      .   .   .   .   .   .   .   .   .   .   .   .
23021355 110  MT  104 11      .   .   .   .   .   .   .   .   .   .   .   .
23021355 111  MT  107 12      .   .   .   .   .   .   .   .   .   .   .   .
23021355 112  MT  109 14      .   .   .   .   .   .   .   .   .   .   .   .
23021355 113  MT  105 14      .   .   .   .   .   .   .   .   .   .   .   .
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-------------- NAME=UNNAMED POND   DATE=80983   SPECIES=CREEK CHUB --------------

  STATCO   ID  GEAR  TL   WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021355 114   MT  102 12        .   .   .   .   .   .   .   .   .   .   .   .
 23021355 115   MT  104 13        .   .   .   .   .   .   .   .   .   .   .   .
 23021355 116   MT  100 11        .   .   .   .   .   .   .   .   .   .   .   .
 23021355 117   MT  106 15        .   .   .   .   .   .   .   .   .   .   .   .
 23021355 118   MT  104 11        .   .   .   .   .   .   .   .   .   .   .   .
 23021355 119   MT  106 12        .   .   .   .   .   .   .   .   .   .   .   .
 23021355 120   MT  102 13        .   .   .   .   .   .   .   .   .   .   .   .
 23021355 121   MT  103 13        .   .   .   .   .   .   .   .   .   .   .   .

------------- NAME=UNNAMED POND   DATE=80983   SPECIES=GOLDEN SHINER ------------

   STATCO   ID GEAR   TL  WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

  23021355   1  MT    73   4       1  105  79   .   .   .   .   .   .   .   .   .
  23021355   2  MT    71   3       1  101  74   .   .   .   .   .   .   .   .   .
  23021355   3  MT   117  14       .    .   .   .   .   .   .   .   .   .   .   .
  23021355   4  MT    79   4       1  106  83   .   .   .   .   .   .   .   .   .
  23021355   5  GN   112  14       2  154 122 146   .   .   .   .   .   .   .   .
  23021355   6  GN   107  12       2  165 110 154   .   .   .   .   .   .   .   .
  23021355   7  GN   107  12       2  157  65 130   .   .   .   .   .   .   .   .
  23021355   8  GN   112  13       2  145  73 118   .   .   .   .   .   .   .   .
  23021355   9  GN   117  16       2  150  81 134   .   .   .   .   .   .   .   .
  23021355  10  GN   104   .       2  170  93 147   .   .   .   .   .   .   .   .
  23021355  11  GN    97   9       2  173  92 152   .   .   .   .   .   .   .   .
  23021355  12  GN    96   8       2  126  80 110   .   .   .   .   .   .   .   .
  23021355  13  GN   105  11       2  153  94 137   .   .   .   .   .   .   .   .
  23021355  14  GN   102  11       2  152  66 130   .   .   .   .   .   .   .   .
  23021355  15  GN   104  11       2  143 102 136   .   .   .   .   .   .   .   .
  23021355  16  GN   104  11       2  130  82 115   .   .   .   .   .   .   .   .
  23021355  17  GN   109  12       2  166  68 123   .   .   .   .   .   .   .   .
  23021355  18  GN   107  11       2  140  53 100   .   .   .   .   .   .   .   .
  23021355  19  GN   102  10       2  129  65 105   .   .   .   .   .   .   .   .
  23021355  20  GN   111  13       2  171  78 140   .   .   .   .   .   .   .   .
  23021355  21  GN    99  11       2  130  65  98   .   .   .   .   .   .   .   .
  23021355  22  GN   108  12       2  162  80 128   .   .   .   .   .   .   .   .
  23021355  23  GN    94   9       2  119  51  89   .   .   .   .   .   .   .   .
  23021355  24  GN   100  11       2  144  68 119   .   .   .   .   .   .   .   .
  23021355  25  GN   104   .       .    .   .   .   .   .   .   .   .   .   .   .
  23021355  26  GN   104  10       .    .   .   .   .   .   .   .   .   .   .   .
  23021355  27  GN   112  12       .    .   .   .   .   .   .   .   .   .   .   .
  23021355  28  MT    84  [illegible]       .    .   .   .   .   .   .   .   .   .   .   .
  23021355  29  MT    84   5       .    .   .   .   .   .   .   .   .   .   .   .
  23021355  30  MT    93   8       .    .   .   .   .   .   .   .   .   .   .   .
  23021355  31  MT    97  10       .    .   .   .   .   .   .   .   .   .   .   .
  23021355  32  MT    85   6       .    .   .   .   .   .   .   .   .   .   .   .
  23021355  33  MT    86   5       .    .   .   .   .   .   .   .   .   .   .   .
  23021355  34  MT    72   3       .    .   .   .   .   .   .   .   .   .   .   .
  23021355  35  MT    67   3       .    .   .   .   .   .   .   .   .   .   .   .
  23021355  36  MT    88   6       .    .   .   .   .   .   .   .   .   .   .   .
  23021355  37  MT    64   2       .    .   .   .   .   .   .   .   .   .   .   .
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---------- NAME=UNNAMED POND   DATE=80983   SPECIES=NO.REDBELLY DACE ----------

  STATCO  ID GEAR TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021355 1   MT  57 2        0  18   .    .   .   .   .   .   .   .   .   .
 23021355 1   MT  58 1        .   .   .    .   .   .   .   .   .   .   .   .

------------- NAME=UNNAMED POND   DATE=80983   SPECIES=PEARL DACE -------------

  STATCO   ID GEAR  TL   WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021355   1  GN   117 16        2 103  49  77   .   .   .   .   .   .   .   .
 23021355   2  GN   113 15        2  88  44  74   .   .   .   .   .   .   .   .
 23021355   3  GN   105 13        2  89  35  75   .   .   .   .   .   .   .   .
 23021355   4  GN   121 17        2 116  46  78   .   .   .   .   .   .   .   .
 23021355   5  GN   121 17        2 112  45  80   .   .   .   .   .   .   .   .
 23021355   6  GN   115 15        2  96  38  70   .   .   .   .   .   .   .   .
 23021355   7  GN   124 17        2 109  43  82   .   .   .   .   .   .   .   .
 23021355   8  GN   117 15        2  85  44  70   .   .   .   .   .   .   .   .
 23021355   9  GN   118  .        2 100  50  73   .   .   .   .   .   .   .   .
 23021355  10  GN   113 13        2  68  34  59   .   .   .   .   .   .   .   .
 23021355  11  GN   113 14        2  96  45  80   .   .   .   .   .   .   .   .
 23021355  12  GN   110 13        2  82  44  66   .   .   .   .   .   .   .   .
 23021355  13  GN   120 16        2  97  43  70   .   .   .   .   .   .   .   .
 23021355  14  GN   118 15        2  95  46  75   .   .   .   .   .   .   .   .
 23021355  15  GN   115 14        2  85  39  69   .   .   .   .   .   .   .   .
 23021355  16  GN   110 13        2  84  41  68   .   .   .   .   .   .   .   .
 23021355  17  GN   107 11        2  88  38  71   .   .   .   .   .   .   .   .
 23021355  18  GN   117 16        2 110  46  82   .   .   .   .   .   .   .   .
 23021355  19  GN   107 11        2  93  43  74   .   .   .   .   .   .   .   .

------------- NAME=UNNAMED POND   DATE=80983   SPECIES=WHITE SUCKER -------------

  STATCO   ID GEAR TL   WT  SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

 23021355   1  GN  297 267   M   2  194 53  149  .   .   .   .   .   .   .   .
 23021355   2  GN  208  97       1  138 66    .  .   .   .   .   .   .   .   .
 23021355   3  GN  248 175   M   1  152 78    .  .   .   .   .   .   .   .   .
 23021355   4  GN  217 106   M   1  114 42    .  .   .   .   .   .   .   .   .
 23021355   5  GN  232 142   F   1  137 70    .  .   .   .   .   .   .   .   .
 23021355   6  GN  263 217   F   1  162 78    .  .   .   .   .   .   .   .   .
 23021355   7  GN  272 228   M   2  201 49  142  .   .   .   .   .   .   .   .
 23021355   8  GN  216 109   M   1  124 52    .  .   .   .   .   .   .   .   .
 23021355   9  GN  235 160   M   1  136 66    .  .   .   .   .   .   .   .   .
 23021355  10  GN  283 283   F   2  206 40  133  .   .   .   .   .   .   .   .
 23021355  11  GN  212 104   F   1  124 59    .  .   .   .   .   .   .   .   .
 23021355  12  GN  213 114       1  128 68    .  .   .   .   .   .   .   .   .
 23021355  13  GN  211 110   M   1  114 49    .  .   .   .   .   .   .   .   .
 23021355  14  GN  261 190   F   1  135 68    .  .   .   .   .   .   .   .   .
 23021355  15  GN  234 158   M   2  168 56   95  .   .   .   .   .   .   .   .
 23021355  16  GN  264 229   F   1  131 70    .  .   .   .   .   .   .   .   .
 23021355  17  GN  212 102       1  152 68    .  .   .   .   .   .   .   .   .
 23021355  18  GN  342 484   F   3  306 54  102  .   .   .   .   .   .   .   .
 23021355  19  GN  201  85       1  122 50    .  .   .   .   .   .   .   .   .
 23021355  20  GN  204  87       1  120 46    .  .   .   .   .   .   .   .   .
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------------ NAME=UNNAMED POND   DATE=80983   SPECIES=WHITE SUCKER ------------

 STATCO   ID GEAR TL   WT  SEX AGE BAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23021355 21  GN  287 264  M    .    .   .   .   .   .   .   .   .   .   .   .
23021355 22  GN  257 194  F    .    .   .   .   .   .   .   .   .   .   .   .
23021355 23  GN  272 244  M    .    .   .   .   .   .   .   .   .   .   .   .
23021355 24  GN  243 183  M    .    .   .   .   .   .   .   .   .   .   .   .
23021355 25  GN  195  94       .    .   .   .   .   .   .   .   .   .   .   .
23021355 26  GN  190  75  M    .    .   .   .   .   .   .   .   .   .   .   .
23021355 27  GN  127  21       .    .   .   .   .   .   .   .   .   .   .   .
23021355 28  GN  380 639  F    .    .   .   .   .   .   .   .   .   .   .   .
23021355 29  GN  323 383  M    .    .   .   .   .   .   .   .   .   .   .   .
23021355 30  GN  363 444  F    .    .   .   .   .   .   .   .   .   .   .   .
23021355 31  GN  380 564  F    .    .   .   .   .   .   .   .   .   .   .   .
23021355 32  GN  381 575  F    .    .   .   .   .   .   .   .   .   .   .   .
23021355 33  GN  334 472  F    .    .   .   .   .   .   .   .   .   .   .   .
23021355 34  GN  282 272  M    .    .   .   .   .   .   .   .   .   .   .   .
23021355 35  GN  281 269  F    .    .   .   .   .   .   .   .   .   .   .   .
23021355 36  GN  319 399  M    .    .   .   .   .   .   .   .   .   .   .   .
23021355 37  GN  350 330  M    .    .   .   .   .   .   .   .   .   .   .   .
23021355 38  GN  322 403  M    .    .   .   .   .   .   .   .   .   .   .   .
23021355 39  GN  233 153  M    .    .   .   .   .   .   .   .   .   .   .   .
23021355 40  GN  282 251  F    .    .   .   .   .   .   .   .   .   .   .   .
23021355 41  GN  269 225  M    .    .   .   .   .   .   .   .   .   .   .   .
23021355 42  GN  246 172  M    .    .   .   .   .   .   .   .   .   .   .   .
23021355 43  GN  311 351  F    .    .   .   .   .   .   .   .   .   .   .   .
23021355 44  GN  377 614  F    .    .   .   .   .   .   .   .   .   .   .   .
23021355 45  GN  241 163  M    .    .   .   .   .   .   .   .   .   .   .   .
23021355 46  GN  257 456  M    .    .   .   .   .   .   .   .   .   .   .   .
23021355 47  GN  260 204  M    .    .   .   .   .   .   .   .   .   .   .   .
23021355 48  GN  272 226  M    .    .   .   .   .   .   .   .   .   .   .   .
23021355 49  GN  312 350  F         .   .   .   .   .   .   .   .   .   .   .
23021355 50  GN  384 651  F    .    .   .   .   .   .   .   .   .   .   .   .
23021355 51  GN  323 369  M    .    .   .   .   .   .   .   .   .   .   .   .
23021355 52  GN  263 201  M    .    .   .   .   .   .   .   .   .   .   .   .
23021355 53  GN  371 570  F    .    .   .   .   .   .   .   .   .   .   .   .
23021355 54  GN  280 255  M    .    .   .   .   .   .   .   .   .   .   .   .
23021355 55  GN  322 410  F    .    .   .   .   .   .   .   .   .   .   .   .
23021355 56  GN  262 225  M    .    .   .   .   .   .   .   .   .   .   .   .
23021355 57  GN  257 178       .    .   .   .   .   .   .   .   .   .   .   .
23021355 58  GN  264 206       .    .   .   .   .   .   .   .   .   .   .   .
23021355 59  GN  383 594  M    .    .   .   .   .   .   .   .   .   .   .   .
23021355 60  GN  362 541  F    .    .   .   .   .   .   .   .   .   .   .   .
23021355 61  GN  280 250  M    .    .   .   .   .   .   .   .   .   .   .   .
23021355 62  GN  319 376  F    .    .   .   .   .   .   .   .   .   .   .   .
23021355 63  GN  267 234  F    .    .   .   .   .   .   .   .   .   .   .   .
23021355 64  GN  228 133  M    .    .   .   .   .   .   .   .   .   .   .   .
23021355 65  GN  309 367  F    .    .   .   .   .   .   .   .   .   .   .   .
23021355 66  GN  321 369  F    .    .   .   .   .   .   .   .   .   .   .   .
23021355 67  GN  350 501  F    .    .   .   .   .   .   .   .   .   .   .   .
23021355 68  GN  307 343  M    .    .   .   .   .   .   .   .   .   .   .   .
23021355 69  GN  317 378       .    .   .   .   .   .   .   .   .   .   .   .
23021355 70  GN  272 252  M    .    .   .   .   .   .   .   .   .   .   .   .
23021355 71  GN  272 214  M    .    .   .   .   .   .   .   .   .   .   .   .
23021355 72  GN  198  89  M    .    .   .   .   .   .   .   .   .   .   .   .
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---------- NAME=UPPER PUG POND   DATE=82782   SPECIES=CHAIN PICKEREL ----------

 STATCO   ID GEAR TL   WT   SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23019362 1    GN  379 313  F    3  153 76  104  .   .   .   .   .   .   .   .
23019362 2    GN  236  66  M    1   95 70    .  .   .   .   .   .   .   .   .
23019362 3    GN  161  22  M    .   60  .    .  .   .   .   .   .   .   .   .

--------- NAME=UPPER PUG POND   DATE=82782   SPECIES=PUMPKINSEED SUNF ----------

  STATCO   ID GEAR TL WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

  23019362  1  MT  67 4       2  82  19  58   .   .   .   .   .   .   .   .
  23019362  2  MT  71 4       2  78  17  56   .   .   .   .   .   .   .   .
  23019362  3  MT  68 3       2  73  16  52   .   .   .   .   .   .   .   .
  23019362  4  MT  66 3       2  66  18  49   .   .   .   .   .   .   .   .
  23019362  5  MT  70 5       2  79  28  64   .   .   .   .   .   .   .   .
  23019362  6  MT  46 2       1  40  20   .   .   .   .   .   .   .   .   .
  23019362  7  MT  49 2       1   5   2   .   .   .   .   .   .   .   .   .
  23019362  8  MT  49 2       1  44  20   .   .   .   .   .   .   .   .   .
  23019362  9  MT  49 2       1  50  22   .   .   .   .   .   .   .   .   .
  23019362 10  MT  51 2       1  58  23   .   .   .   .   .   .   .   .   .
  23019362 11  MT  58 3       1  59  23   .   .   .   .   .   .   .   .   .
  23019362 12  MT  53 2       1  43  21   .   .   .   .   .   .   .   .   .
  23019362 13  MT  47 1       1  46  24   .   .   .   .   .   .   .   .   .
  23019362 14  MT  51 2       1  59  28   .   .   .   .   .   .   .   .   .
  23019362 15  MT  45 1       1  48  24   .   .   .   .   .   .   .   .   .
  23019362 16  MT  46 1       1  48  23   .   .   .   .   .   .   .   .   .
  23019362 17  MT  54 2       1  68  33   .   .   .   .   .   .   .   .   .
  23019362 18  MT  46 1       1  45  21   .   .   .   .   .   .   .   .   .
  23019362 19  MT  48 2       1  48  21   .   .   .   .   .   .   .   .   .
  23019362 20  MT  47 1       1  45  21   .   .   .   .   .   .   .   .   .
  23019362 21  MT  50 2       1  60  26   .   .   .   .   .   .   .   .   .
  23019362 22  MT  51 2       1  51  20   .   .   .   .   .   .   .   .   .
  23019362 23  MT  50 2       1  50  23   .   .   .   .   .   .   .   .   .
  23019362 24  MT  48 2       1  59  23   .   .   .   .   .   .   .   .   .

----------- NAME=UPPER PUG POND   DATE=82782   SPECIES=WHITE PERCH -----------

 STATCO   ID GEAR TL   WT   SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23019362 1    GN  342 653       4  385 74  205 360  .   .   .   .   .   .   .
23019362 2    GN  282 327       3  337 78  210   .  .   .   .   .   .   .   .
23019362 3    GN  230 163       2  237 53  167   .  .   .   .   .   .   .   .
23019362 4    GN  210 122       2  224 58  166   .  .   .   .   .   .   .   .
23019362 5    GN  259 232       2  250 77  200   .  .   .   .   .   .   .   .

----------- NAME=UPPER PUG POND   DATE=82782   SPECIES=WHITE SUCKER -----------

 STATCO   ID GEAR TL    WT   SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23019362 1    GN  475 1477  M    4  324 79  168 296  .   .   .   .   .   .   .
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------------ NAME=UPPER PUG POND   DATE=82782   SPECIES=YELLOW PERCH ------------

  STATCO ID GEAR  TL  WT SEX AGE RAD AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9 AN10

23019362  1  MT  134  21       3 126  31  91   .   .   .   .   .   .   .    .
23019362  2  MT  128  19       2  84  24  56   .   .   .   .   .   .   .    .
23019362  3  MT  128  19       2 131  37  93   .   .   .   .   .   .   .    .
23019362  4  MT   97   8       2 100  33  66   .   .   .   .   .   .   .    .
23019362  5  MT   96   7       2  84  27  57   .   .   .   .   .   .   .    .
23019362  6  MT  105   9       2  93  23  65   .   .   .   .   .   .   .    .
23019362  7  MT  105  10       2  84  33  56   .   .   .   .   .   .   .    .
23019362  8  MT   85   6       2  81  28  46   .   .   .   .   .   .   .    .
23019362  9  MT   62   1       1  45  28   .   .   .   .   .   .   .   .    .
23019362 10  MT   60   1       1  49  24   .   .   .   .   .   .   .   .    .
23019362 11  MT   58   1       1  42  25   .   .   .   .   .   .   .   .    .
23019362 12  MT  105  10       2  77  29  52   .   .   .   .   .   .   .    .
23019362 13  MT   99   9       2  96  30  54   .   .   .   .   .   .   .    .
23019362 14  MT   55   1       1  36  19   .   .   .   .   .   .   .   .    .
23019362 15  MT   65   3       1  49  29   .   .   .   .   .   .   .   .    .
23019362 16  MT   62   2       1  38  20   .   .   .   .   .   .   .   .    .
23019362 17  MT   60   2       1  41  20   .   .   .   .   .   .   .   .    .
23019362 18  MT   51   2       1  43  22   .   .   .   .   .   .   .   .    .
23019362 19  MT   50   1       1  33  19   .   .   .   .   .   .   .   .    .
23019362 20  MT   95   7       3  95  35  55   .   .   .   .   .   .   .    .
23019362 21  MT   55   2       1  35  19   .   .   .   .   .   .   .   .    .
23019362 22  MT   60   2       1  47  29   .   .   .   .   .   .   .   .    .
23019362 23  MT   85   7       3  74  23  43   .   .   .   .   .   .   .    .
23019362 24  MT   56   2       1  39  20   .   .   .   .   .   .   .   .    .
23019362 25  MT   50   2       1  42  27   .   .   .   .   .   .   .   .    .
23019362 26  MT   57   2       1  37  29   .   .   .   .   .   .   .   .    .
23019362 27  MT   48   1       1  35  18   .   .   .   .   .   .   .   .    .
23019362 28  MT   57   2       1  37  26   .   .   .   .   .   .   .   .    .
23019362 29  MT   63   3       1  41  22   .   .   .   .   .   .   .   .    .
23019362 30  MT   59   2       1  42  23   .   .   .   .   .   .   .   .    .
23019362 31  MT   62   2       1  42  20   .   .   .   .   .   .   .   .    .
23019362 32  MT   61   2       .   .   .   .   .   .   .   .   .   .   .    .
23019362 33  MT   55   2       .   .   .   .   .   .   .   .   .   .   .    .
23019362 34  MT   61   3       .   .   .   .   .   .   .   .   .   .   .    .
23019362 35  MT   59   2       .   .   .   .   .   .   .   .   .   .   .    .
23019362 36  MT   52   2       .   .   .   .   .   .   .   .   .   .   .    .
23019362 37  MT   51   1       .   .   .   .   .   .   .   .   .   .   .    .
23019362 38  MT   60   2       .   .   .   .   .   .   .   .   .   .   .    .
23019362 39  MT   62   3       .   .   .   .   .   .   .   .   .   .   .    .
23019362 40  MT   59   2       .   .   .   .   .   .   .   .   .   .   .    .
23019362 41  MT   49   1       .   .   .   .   .   .   .   .   .   .   .    .
23019362 42  MT   47   1       .   .   .   .   .   .   .   .   .   .   .    .
23019362 43  MT   55   2       .   .   .   .   .   .   .   .   .   .   .    .
23019362 44  MT   53   2       .   .   .   .   .   .   .   .   .   .   .    .
23019362 45  MT   52   1       .   .   .   .   .   .   .   .   .   .   .    .
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16. Abstract (Limit: 200 words)

This study was conducted to assess the status of fish populations of 22 lakes in Maine representing a range of chemical conditions related to acidity. All the lakes were in undisturbed watersheds. Lakes were selected that occurred in bedrock of high acid neutralizing capacity (ANC) and low ANC. In addition to assessing water chemistry and fish populations of each lake, trace element concentration, bone strength and composition, and gill histological parameters were studied. Results indicate that bedrock buffering capacity and soil cation exchange capacity were not good predictive indices of lake acidity. Bedrock and soil areas with high ANC did not contain acid lakes, but areas that were low in ANC contained lakes ranging from highly acidic to neutral. Without detailed information on watershed hydrology, it was not possible to predict the level of acidity of lakes located in regions of low ANC. Results also show that fish species distribution and abundance were affected by acidity. Lakes of pH less than 5.0 were devoid of fish. Lakes of pH about 5.5. and above contained relatively normal fish populations in terms of fish abundance and species richness. Fish from lakes between pH 5.4-6.0 contained elevated concentrations of trace metals. Fish from acidic lakes also showed sublethal stress indicated by reduced bone mechanical strength and increased numbers of gill mucous cells.

17. Document Analysis a. Descriptors

Acidification, pH, fisheries, acid neutralizing capacity, geology, histology, bone structure, alkalinity, cadmium, mercury, lead

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